# Bacterioplankton response to salinity (aka 2015 CSI Dispersal Experiment)

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Project Description: Analysis of salinity and dispersal of saline aquatic communities on bacterial community structure and function.

## Setting up working directory, packages

# Loading data file

## manipulate data files for statistical analyses and graphing

## Venn Diagram

```
require("VennDiagram")
## Loading required package: VennDiagram
## Warning: package 'VennDiagram' was built under R version 3.2.5
## Loading required package: futile.logger
## Warning: package 'futile.logger' was built under R version 3.2.5
##
## Attaching package: 'VennDiagram'
## The following object is masked from 'package:ape':
##
##
       rotate
require("Hmisc")
library("gridExtra")
## Warning: package 'gridExtra' was built under R version 3.2.5
## Attaching package: 'gridExtra'
## The following object is masked from 'package:Hmisc':
##
       combine
##
## The following object is masked from 'package:dplyr':
##
##
       combine
dim(design_final)
```

```
## [1] 126
dim(csi_pres_abs)
## [1]
         126 13435
#head(design_final)
#head(csi_pres_abs)
all.equal(rownames(design_final), rownames(csi_pres_abs))
## [1] TRUE
occupants <- function(x){names(which(colSums(x) > 1))}
1.overlap <- function(x){</pre>
 temp <- calculate.overlap(x)</pre>
 1.temp <- length(temp)</pre>
  temp2 <- temp[1: (l.temp - length(x) )]</pre>
  return(rev(lengths(temp2)))
  }
salt <- occupants(csi_pres_abs[which(design_final$Number == 1), ])</pre>
fresh <- occupants(csi_pres_abs[which(design_final$Number == 2), ])</pre>
venn.plot <- draw.pairwise.venn(area1 = length(salt), area2 = length(fresh),</pre>
                    cross.area = length(intersect(salt, fresh)),
                   category = c("Source Salt", "Source Fresh"),
                   col = c("green", "blue"), fill = c("green", "blue"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(200, 160))
              1808
                                         291
                                                                 1774
                                                             Source Fresh
    Source Salt
#manuallly export PDF to figures folder
dev.off()
## null device
##
sal0 <- occupants(csi_pres_abs[which(design_final$Salinity == 0 &</pre>
                                      design final$Number > 3), ])
sal5 <- occupants(csi_pres_abs[which(design_final$Salinity == 5),])</pre>
```

```
sal9 <- occupants(csi_pres_abs[which(design_final$Salinity == 9),])</pre>
sal13 <- occupants(csi_pres_abs[which(design_final$Salinity == 13),])</pre>
venn.plot2 <- draw.triple.venn(area1 = length(salt), area2 = length(sal0),</pre>
     area3 = length(sal5), euler.d = TRUE,
     n12 = length(Reduce(intersect, list(salt, sal0))),
     n23 = length(Reduce(intersect, list(sal0, sal5))),
     n13 = length(Reduce(intersect, list(salt, sal5))),
     n123 = length(Reduce(intersect, list(salt, sal0, sal5))),
      category = c("Source Salt", "Salinity 0", "Salinity 5"),
                   col = c("green", "darkblue", "orange"), fill = c("green", "darkblue", "orange"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(-40, 40, 180))
#manuallly export PDF to figures folder
dev.off()
## null device
##
venn.plot3 <- draw.triple.venn(area1 = length(salt), area2 = length(sal5),</pre>
     area3 = length(sal9), euler.d = TRUE,
     n12 = length(Reduce(intersect, list(salt, sal5))),
    n23 = length(Reduce(intersect, list(sal5, sal9))),
     n13 = length(Reduce(intersect, list(salt, sal9))),
     n123 = length(Reduce(intersect, list(salt, sal5, sal9))),
      category = c("Source Salt", "Salinity 5", "Salinity 9"),
                   col = c("green", "orange", "purple"), fill = c("green", "orange", "purple"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(-40, 40, 180))
#manuallly export PDF to figures folder
dev.off()
## null device
##
venn.plot4 <- draw.triple.venn(area1 = length(salt), area2 = length(sal9),</pre>
     area3 = length(sal13), euler.d = TRUE,
     n12 = length(Reduce(intersect, list(salt, sal9))),
    n23 = length(Reduce(intersect, list(sal9, sal13))),
     n13 = length(Reduce(intersect, list(salt, sal13))),
    n123 = length(Reduce(intersect, list(salt, sal9, sal13))),
      category = c("Source Salt", "Salinity 9", "Salinity 13"),
                   col = c("green", "purple", "darkgreen"), fill = c("green", "purple", "darkgreen"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(-30, 30, 50))
#manuallly export PDF to figures folder
dev.off()
## null device
venn.plot5 <- draw.triple.venn(area1 = length(fresh), area2 = length(sal0),</pre>
     area3 = length(sal5), euler.d = TRUE,
     n12 = length(Reduce(intersect, list(fresh, sal0))),
    n23 = length(Reduce(intersect, list(sal0, sal5))),
     n13 = length(Reduce(intersect, list(fresh, sal5))),
    n123 = length(Reduce(intersect, list(fresh, sal0, sal5))),
     category = c("Source Fresh", "Salinity 0", "Salinity 5"),
```

```
col = c("blue", "darkblue", "orange"), fill = c("blue", "darkblue", "orange"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(-40, 40, 180))
#manuallly export PDF to figures folder
dev.off()
## null device
##
venn.plot5 <- draw.triple.venn(area1 = length(fresh), area2 = length(sal5),</pre>
     area3 = length(sal9), euler.d = TRUE,
     n12 = length(Reduce(intersect, list(fresh, sal5))),
    n23 = length(Reduce(intersect, list(sal5, sal9))),
    n13 = length(Reduce(intersect, list(fresh, sal9))),
    n123 = length(Reduce(intersect, list(fresh, sal5, sal9))),
      category = c("Source Fresh", "Salinity 5", "Salinity 9"),
                   col = c("blue", "orange", "purple"), fill = c("blue", "orange", "purple"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(-40, 40, 180))
#manuallly export PDF to figures folder
dev.off()
## null device
##
venn.plot6 <- draw.triple.venn(area1 = length(fresh), area2 = length(sal9),</pre>
     area3 = length(sal13), euler.d = TRUE,
    n12 = length(Reduce(intersect, list(fresh, sal9))),
    n23 = length(Reduce(intersect, list(sal9, sal13))),
    n13 = length(Reduce(intersect, list(fresh, sal13))),
    n123 = length(Reduce(intersect, list(fresh, sal9, sal13))),
      category = c("Source Fresh", "Salinity 9", "Salinity 13"),
                   col = c("blue", "purple", "darkgreen"), fill = c("blue", "purple", "darkgreen"),
                   scaled = T, cex=2, cat.cex=2, cat.pos = c(-30, 30, 180))
#manuallly export PDF to figures folder
dev.off()
## null device
##
```

# Calculating Diversity Metrics

```
# Rarefy Abundances (min abundance is 13,240. We are sampling to 13,000)
min(rowSums(otu_final.ns))

## [1] 13240
otu.rarefy <- rrarefy(otu_final.ns, 13000)

# Calculate Shannon H' (called shannon) using full data set (WITH source tanks)
shannon <- diversity(otu.rarefy, "shannon")

# Species Richness
richness <- rowSums((otu.rarefy >= 1))

# Pielou's evenness
```

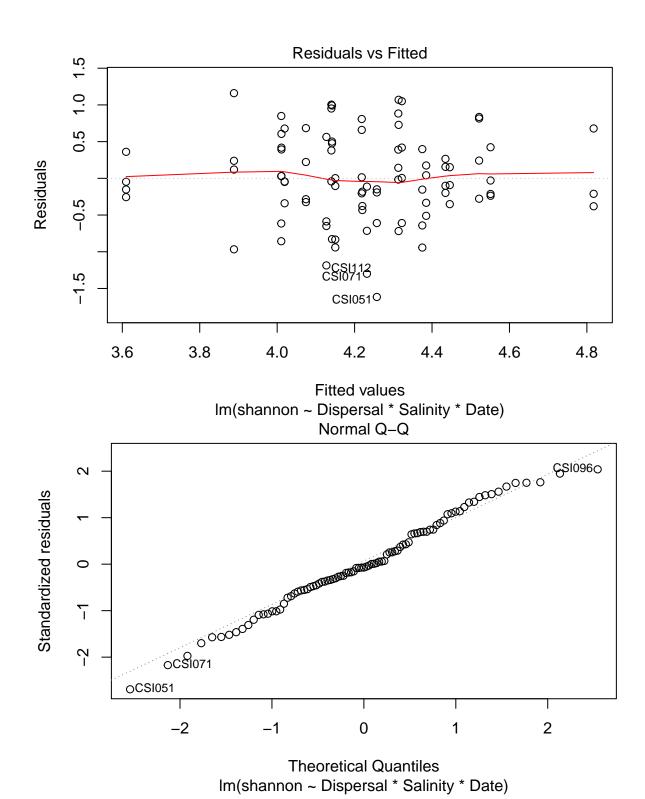
```
J <- shannon/log(specnumber(otu.rarefy[,-c(1:1)]))</pre>
# Dombined design, shannon, richness, evenness - no source tanks
csi_otu.div <- cbind(design.ns.final,shannon,richness,J)</pre>
# Rarefy Abundances with SOURCES (min abundance is 13,240. We are sampling to 13,000)
min(rowSums(otu_final))
## [1] 13240
otu.rarefy <- rrarefy(otu_final, 13000)</pre>
# Calculate Shannon H' (called shannon) using full data set (WITH source tanks)
shannon.source <- diversity(otu.rarefy, "shannon")</pre>
# Species Richness
richness.source <- rowSums((otu.rarefy >= 1))
# Pielou's evenness
J.source <- shannon/log(specnumber(otu.rarefy[,-c(1:1)]))</pre>
## Warning in shannon/log(specnumber(otu.rarefy[, -c(1:1)])): longer object
## length is not a multiple of shorter object length
# Dombined design, shannon, richness, evenness - no source tanks
csi_otu.div.source <- cbind(design_final,shannon.source,richness.source,J.source)</pre>
```

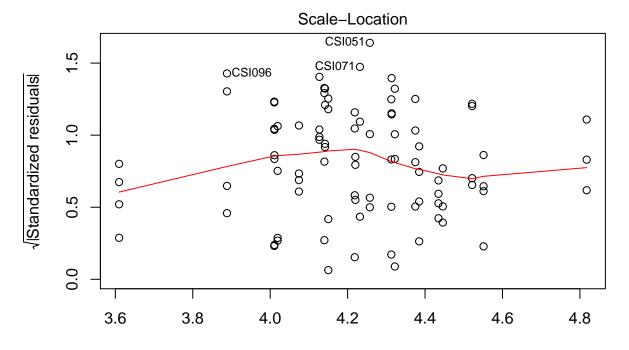
(1) How does salinity/dispersal/date influence bacterial diversity? -Calculate Shannon's H' (diversity metric) - no source tanks -Run stat model diversity~dispersal|salinity|date

Supplemental Results: Use full data set (with source tanks) #Maybe just subset source tanks into a separate figure with no stats (just use as supplemental)

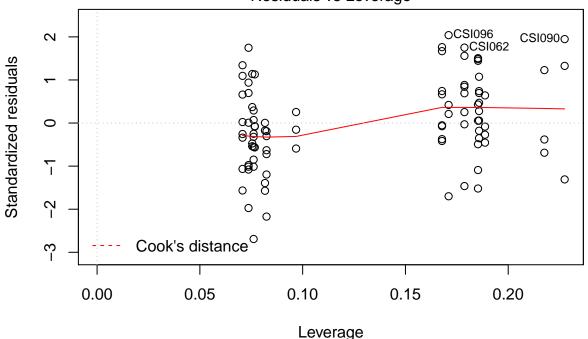
# Testing salinity x dispersal influence on DIVERSITY

```
# run full parametric statistical model
shannon.lm <- lm(shannon ~ Dispersal*Salinity*Date, data = csi_otu.div)
plot(shannon.lm)</pre>
```





Fitted values
Im(shannon ~ Dispersal \* Salinity \* Date)
Residuals vs Leverage



shannon.lm

```
##
## Call:
## lm(formula = shannon ~ Dispersal * Salinity * Date, data = csi_otu.div)
##
## Coefficients:
```

Im(shannon ~ Dispersal \* Salinity \* Date)

```
##
                      (Intercept)
                                                        Dispersal
##
                         2.808097
                                                         0.400831
##
                         Salinity
                                                      Date6/29/15
##
                         0.195532
                                                         0.597635
##
                     Date7/26/15
                                               Dispersal:Salinity
##
                         1.452703
                                                        -0.051316
##
            Dispersal:Date6/29/15
                                            Dispersal:Date7/26/15
##
                        -0.098175
                                                        -0.313883
##
             Salinity:Date6/29/15
                                             Salinity:Date7/26/15
##
                        -0.060443
                                                        -0.204450
## Dispersal:Salinity:Date6/29/15
                                   Dispersal:Salinity:Date7/26/15
                        -0.004619
                                                         0.044504
anova(shannon.lm)
## Analysis of Variance Table
##
## Response: shannon
##
                           Df Sum Sq Mean Sq F value Pr(>F)
## Dispersal
                            1 0.0124 0.01238 0.0317 0.85908
## Salinity
                            1 0.2552 0.25522 0.6539 0.42113
## Date
                            2 0.5449 0.27243 0.6981 0.50059
## Dispersal:Salinity
                           1 0.6437 0.64367 1.6493 0.20281
## Dispersal:Date
                            2 0.1277 0.06386 0.1636 0.84935
## Salinity:Date
                            2 3.3048 1.65238 4.2340 0.01792 *
## Dispersal:Salinity:Date 2 0.2645 0.13225 0.3389 0.71360
                           79 30.8312 0.39027
## Residuals
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
# run linear regression measured salinity used instead of 'factor' salinity
shannon.reg <- lm(shannon~Salinity_real, data = csi_otu.div)</pre>
summary(shannon.reg)
##
## Call:
## lm(formula = shannon ~ Salinity_real, data = csi_otu.div)
## Residuals:
                  1Q
                     Median
                                    3Q
## -1.60412 -0.43680 0.02582 0.44827 1.23924
## Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                 4.13931
                             0.11804 35.068
                                               <2e-16 ***
## Salinity_real 0.01244
                             0.01452
                                       0.857
                                                0.394
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 0.6333 on 89 degrees of freedom
## Multiple R-squared: 0.008184, Adjusted R-squared: -0.00296
## F-statistic: 0.7343 on 1 and 89 DF, p-value: 0.3938
# run for source tanks only
csi.div.source1 <- subset(csi_otu.div.source, Number == "1")</pre>
csi.div.source2 <- subset(csi_otu.div.source, Number == "2")</pre>
```

#### csi.div.source1 #salt source

```
Date Date2 Replicate Number
                 CSI ID
                                                                    Tank Name
                                     0 A 1 A1_2015-June11
## CSI001 ECU_CSI_001 11-Jun-15
                                                A 1 A1_2015-June11
B 1 B1_2015-June11
C 1 C1_2015-June11
A 1 A1_2015-July25
B 1 B1_2015-July25
C 1 C1_2015-July25
D 1 D1_2015-July25
A 1 A1_2015-June29
B 1 B1_2015-June29
C 1 C1_2015-June29
D 1 D1_2015-June29
                                             В
                                      0
## CSI012 ECU_CSI_012 11-Jun-15
## CSI022 ECU CSI 023 11-Jun-15
                                     0
## CSI044 ECU CSI 221 26-Jul-15
                                       45
## CSI055 ECU_CSI_232 26-Jul-15
                                       45
## CSI065 ECU_CSI_243 26-Jul-15
                                     45
## CSI076 ECU_CSI_254 26-Jul-15
                                     45
## CSI087 ECU_CSI_089 29-Jun-15
                                     18
## CSI098 ECU_CSI_100 29-Jun-15
                                     18
## CSI108 ECU_CSI_111 29-Jun-15
                                     18
## CSI119 ECU_CSI_122 29-Jun-15
                                     18
           Salinity Dispersal shannon.source richness.source J.source
## CSI001
              13 Source13
                                  4.855114
                                                    779 0.6070181
## CSI012
                 13 Source13
                                      4.789448
                                                              775 0.6855322
## CSI022
                13 Source13
                                      4.650721
                                                              618 0.7037401
                                                            191 0.6953540

763 0.6530553

455 0.5684702

708 0.6108982

766 0.5332096

946 0.5654872

511 0.6919147
## CSI044
                13 Source13
                                      2.323635
                                      4.357734
                13 Source13
## CSI055
                13 Source13
## CSI065
                                     4.139442
## CSI076
                13 Source13
                                     4.799420
## CSI087
                13 Source13
                                     4.879939
                                      4.959505
                13 Source13
## CSI098
                13 Source13
## CSI108
                                      4.075938
## CSI119
                13 Source13
                                      4.409890
                                                              798 0.7122222
```

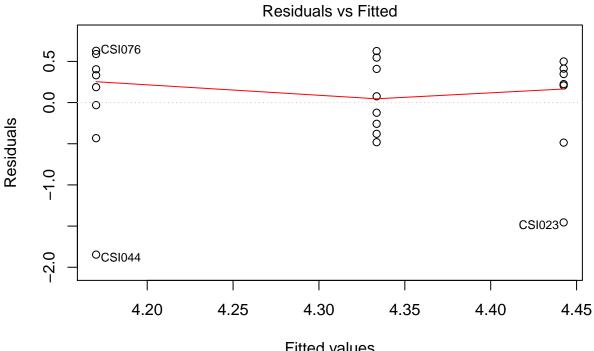
csi.div.source2 #fresh source

##		CSI_ID	Date	Date2	Replicate	Number	Tank_Name
##	CSI002	ECU_CSI_002		0	A		A2_2015-June11
##	CSI013	ECU_CSI_013	11-Jun-15	0	В	2	B2_2015-June11
##	CSI023	ECU_CSI_024	11-Jun-15	0	C	2	C2_2015-June11
##	CSI034	ECU_CSI_035	11-Jun-15	0	D	2	D2_2015-June11
##	CSI045	ECU_CSI_222	26-Jul-15	45	A	2	A2_2015-July25
##	CSI056	ECU_CSI_233	26-Jul-15	45	В	2	B2_2015-July25
##	CSI066	ECU_CSI_244	26-Jul-15	45	C	2	C2_2015-July25
##	CSI077	ECU_CSI_255	26-Jul-15	45	D	2	D2_2015-July25
##	CSI088	ECU_CSI_090	29-Jun-15	18	Α	2	A2_2015-June29
##	CSI099	ECU_CSI_101	29-Jun-15	18	В	2	B2_2015-June29
##	CSI109	ECU_CSI_112	29-Jun-15	18	C	2	C2_2015-June29
##	CSI120	ECU_CSI_123	29-Jun-15	18	D	2	D2_2015-June29
##		Salinity Dis	spersal sha	annon.s	source ricl	nness.so	ource J.source
##	CSI002	0 8	Source0	3.9	956356		637 0.5871045
##	CSI013	0 8	Source0	4.6	667017		777 0.8260076
##	CSI023	0 8	Source0	2.9	987073		299 0.6068755
##	CSI034	0 8	Source0	4.9	942236		946 0.6161326
##	CSI045	0 8	Source0	3.7	738055		523 0.8200148
##	CSI056	0 5	Source0	4.5	574818		663 0.7331726
##	CSI066	0 5	Source0	4.5	502446		625 0.4985677
##	CSI077		Source0		760017		668 0.7097667
##	CSI088	0 5	Source0	3.8	352306		519 0.6471159
##	CSI099	0 5	Source0	4.7	742571		734 0.6725430
##	CSI109	0 5	Source0	4.2	210340		612 0.5554407
##	CSI120	0 5	Source0	3.9	953994		474 0.8158185

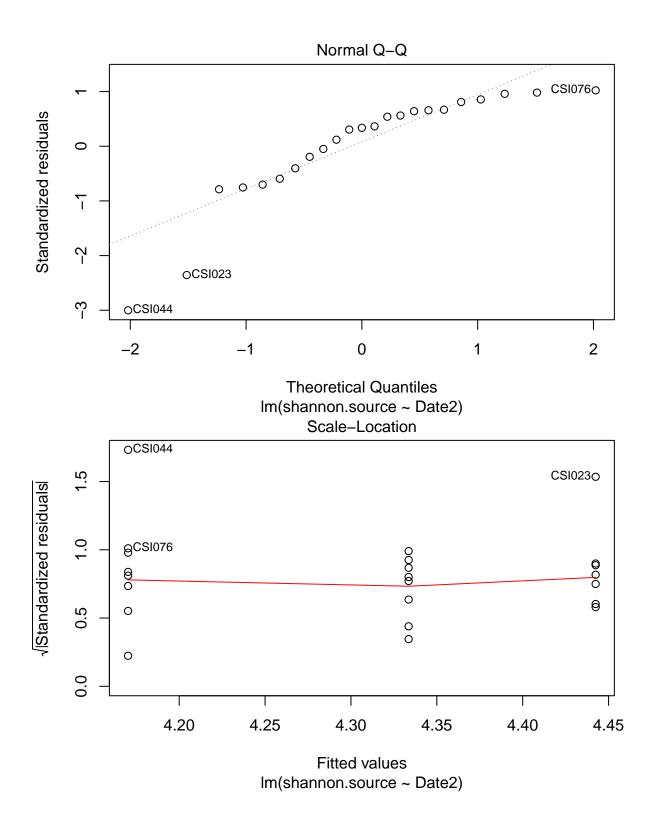
```
csi.div.source <- rbind(csi.div.source1,csi.div.source2)
dim(csi.div.source)</pre>
```

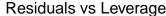
### ## [1] 23 11

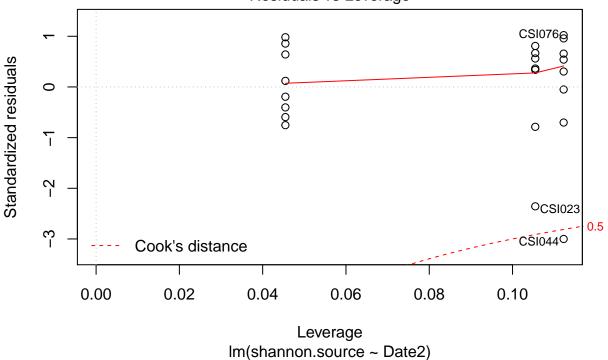
```
Number1 <- as.factor(csi.div.source$Number)
shannon.lm.source <- lm(shannon.source ~ Date2, data = csi.div.source)
plot(shannon.lm.source)</pre>
```



Fitted values Im(shannon.source ~ Date2)



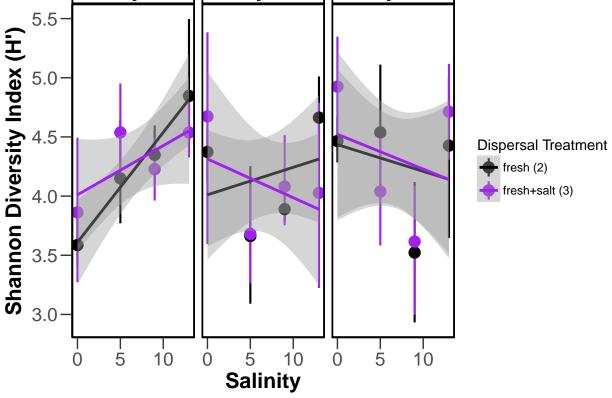




#### summary(shannon.lm.source)

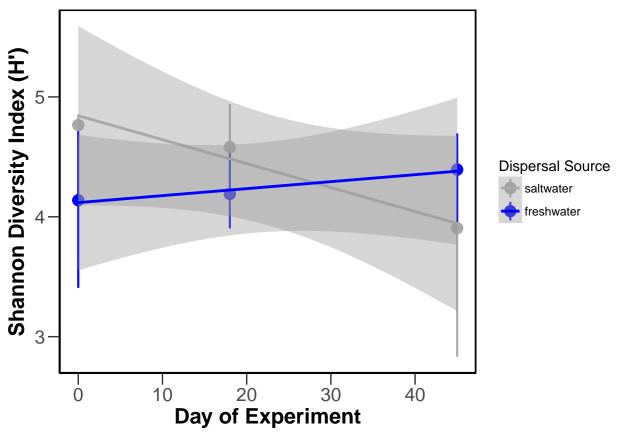
```
##
## lm(formula = shannon.source ~ Date2, data = csi.div.source)
##
## Residuals:
      Min
               1Q Median
                                3Q
                                      Max
## -1.8466 -0.3186 0.2082 0.4108 0.6292
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
                           0.212117
                                    20.944 1.49e-15 ***
## (Intercept) 4.442490
               -0.006050
                           0.007421
## Date2
                                    -0.815
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 0.6532 on 21 degrees of freedom
## Multiple R-squared: 0.03068,
                                   Adjusted R-squared:
## F-statistic: 0.6647 on 1 and 21 DF, p-value: 0.4241
shannon.lm.source
##
## Call:
## lm(formula = shannon.source ~ Date2, data = csi.div.source)
## Coefficients:
##
  (Intercept)
                     Date2
##
       4.44249
                   -0.00605
```

```
anova(shannon.lm.source)
## Analysis of Variance Table
## Response: shannon.source
             Df Sum Sq Mean Sq F value Pr(>F)
              1 0.2836 0.28360 0.6647 0.4241
## Residuals 21 8.9600 0.42667
date_1 <- as.factor(design.ns.final$Date2)</pre>
labels <- c("0"="Day 0","18"="Day 18", "45"="Day 45")
# Graphing Shannon Diversity - Treatment Salinity NO SOURCE
p <- ggplot(csi_otu.div, aes(x=Salinity, y=shannon, color=as.factor(Dispersal)))+ scale_color_manual(na
p1=p+geom_smooth(method="lm")+facet_wrap(~Date2)+facet_grid(. ~ Date2, labeller=labeller(Date2 = labels
p1 + theme_bw() + theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), axis.li
              Day 0
                                Day 18
                                                   Day 45
    5.5^{-}
    5.0
```



ggsave("../figures/shannon.source.pdf", plot=last\_plot(), device=NULL, path=NULL, scale=1, width=NA, he
## Saving 6.5 x 4.5 in image

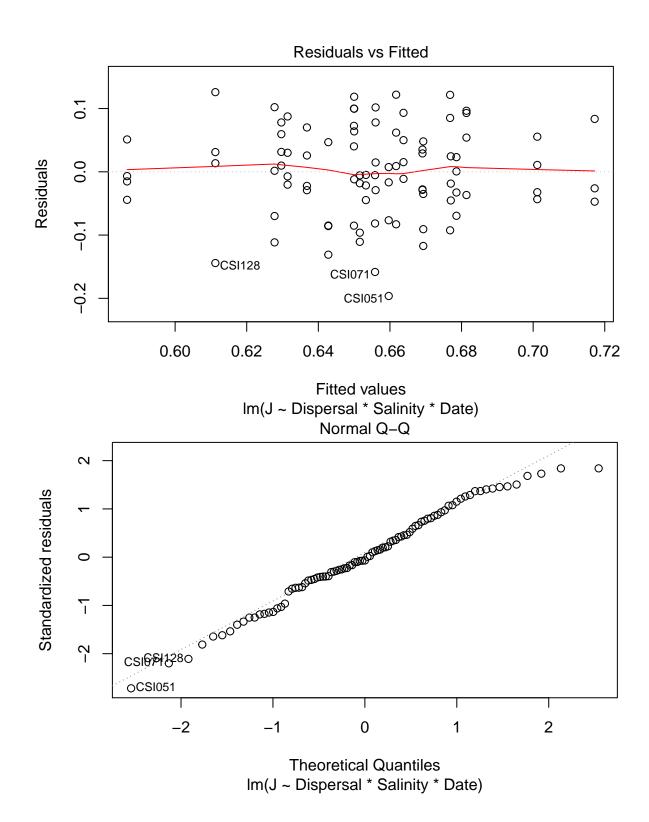
```
# Graphing Shannon Diversity - Treatment Salinity SOURCE ONLY
p <- ggplot(csi.div.source, aes(x=Date2, y=shannon.source, color=as.factor(Number1)))+ scale_color_manu
p1=p+geom_smooth(method="lm")
p1 + theme_bw() + theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), axis.line</pre>
```

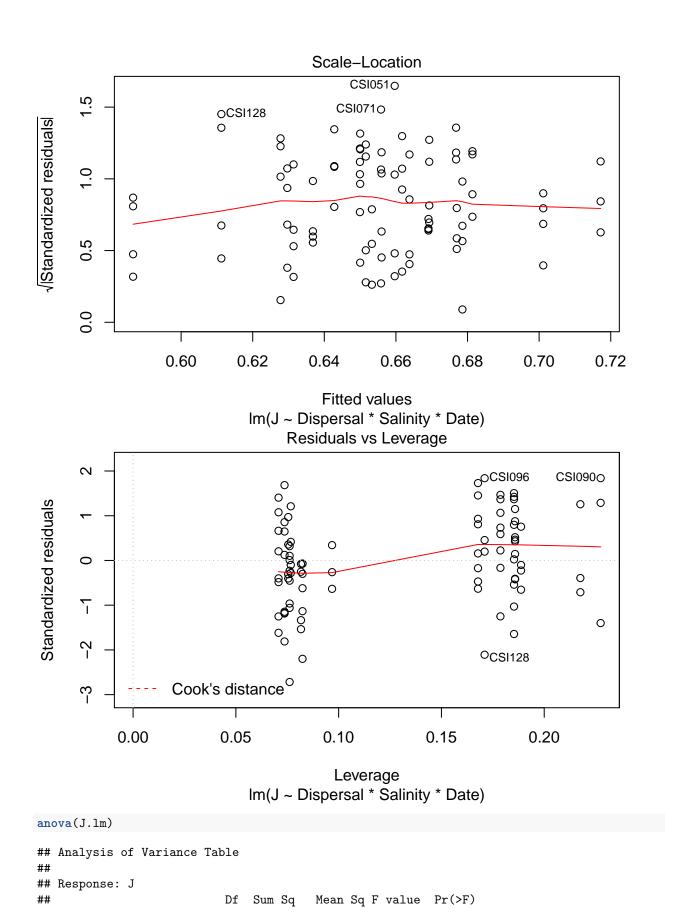


ggsave("../figures/shannon.source.pdf", plot=last\_plot(), device=NULL, path=NULL, scale=1, width=NA, he

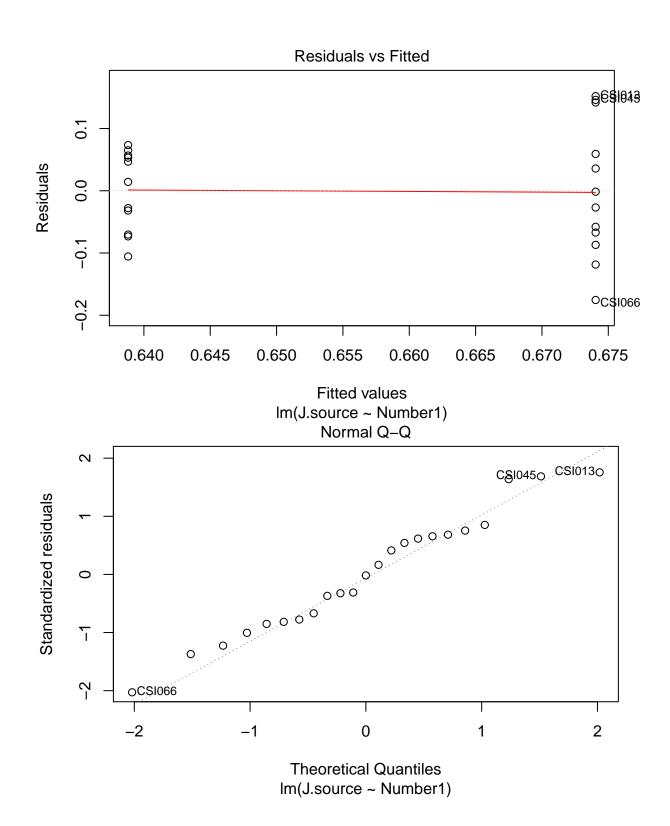
(2) How does salinity/dispersal/date influence bacterial evenness?

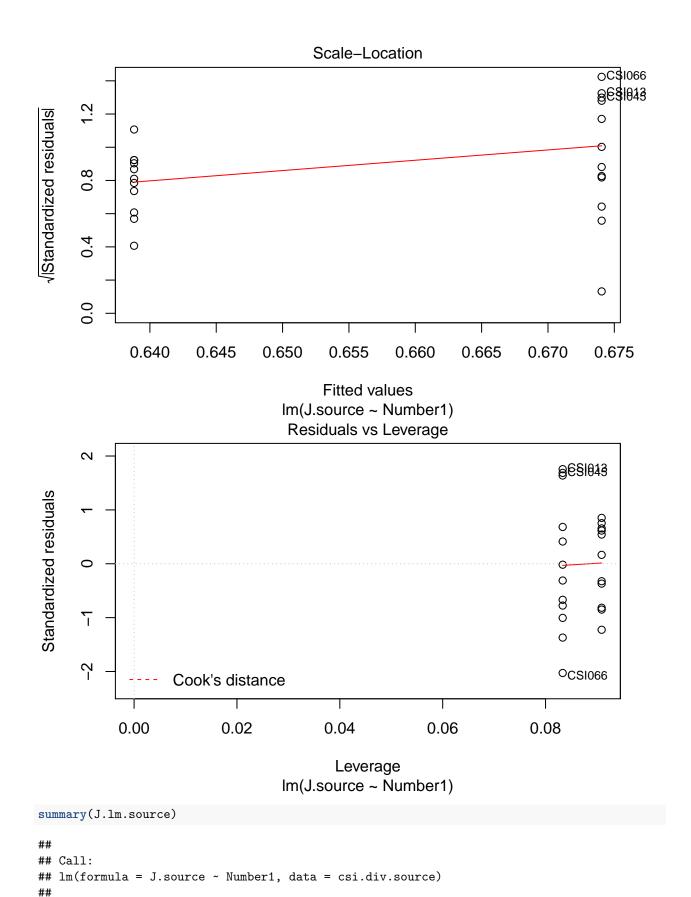
```
# run full parametric statistical model
J.lm <- lm(J ~ Dispersal*Salinity*Date, data = csi_otu.div)
plot(J.lm)</pre>
```





```
## Dispersal
                          1 0.00079 0.0007859 0.1391 0.71017
## Salinity
                           1 0.00463 0.0046256 0.8187 0.36830
                          2 0.00588 0.0029401 0.5204 0.59630
## Date
## Dispersal:Salinity
                          1 0.00824 0.0082375 1.4581 0.23084
## Dispersal:Date
                           2 0.00186 0.0009315 0.1649 0.84829
## Salinity:Date
                           2 0.04109 0.0205442 3.6364 0.03085 *
## Dispersal:Salinity:Date 2 0.00402 0.0020116 0.3561 0.70155
## Residuals
                          79 0.44632 0.0056496
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
# run linear regression measured salinity used instead of 'factor' salinity
J.reg <- lm(J~Salinity_real, data = csi_otu.div)</pre>
summary(J.reg)
## Call:
## lm(formula = J ~ Salinity_real, data = csi_otu.div)
## Residuals:
##
        Min
                   1Q
                         Median
                                       3Q
                                                Max
## -0.198694 -0.046738 -0.003176 0.053473 0.153952
##
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
                0.643804 0.014080 45.724
                                            <2e-16 ***
## (Intercept)
## Salinity_real 0.001616 0.001732
                                     0.933
                                              0.353
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 0.07554 on 89 degrees of freedom
## Multiple R-squared: 0.009685, Adjusted R-squared: -0.001442
## F-statistic: 0.8704 on 1 and 89 DF, p-value: 0.3534
# run for source tanks only
J.lm.source <- lm(J.source ~ Number1, data = csi.div.source)</pre>
plot(J.lm.source)
```





```
## Residuals:
##
         Min
                           Median
                     1Q
                                          30
                                                   Max
   -0.175479 -0.068755 -0.001504 0.057835
##
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
##
## (Intercept) 0.63881
                            0.02725 23.441
                                               <2e-16 ***
                                       0.934
                                                0.361
## Number12
                 0.03524
                            0.03773
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 0.09038 on 21 degrees of freedom
                                     Adjusted R-squared:
## Multiple R-squared: 0.03988,
## F-statistic: 0.8723 on 1 and 21 DF, p-value: 0.3609
anova(J.lm.source)
## Analysis of Variance Table
## Response: J.source
             \mathsf{Df}
                   Sum Sq
                            Mean Sq F value Pr(>F)
              1 0.007126 0.0071261 0.8723 0.3609
## Residuals 21 0.171556 0.0081693
# Graphing Pielous J - Treatment Salinity
p <- ggplot(csi_otu.div, aes(x=Salinity, y=J, color=as.factor(Dispersal)))+ scale_color_manual(name="Di
p1=p+geom_smooth(method="lm")+facet_wrap(~Date2)+facet_grid(. ~ Date2, labeller=labeller(Date2 = labels
p1 + theme_bw() + theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), axis.li
                                 Day 18
                                                     Day 45
               Day 0
    0.8
Pielou's Evenness (J')
    0.7
                                                                       Dispersal Treatment

    fresh (2)

                                                                          fresh+salt (3)
    0.6
```

Ò

5

10

10

5

**Salinity** 

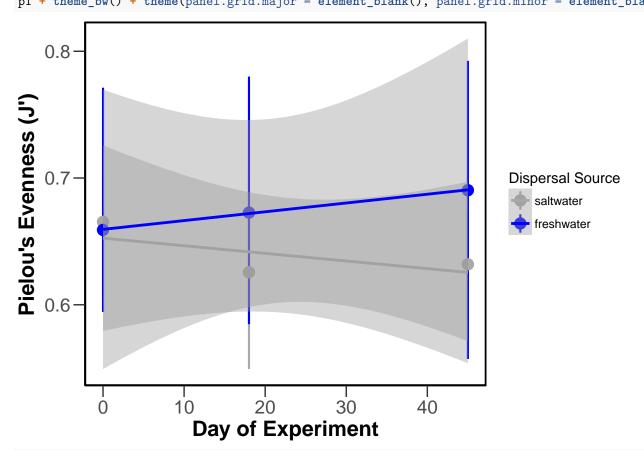
Ó

0.5

5

10

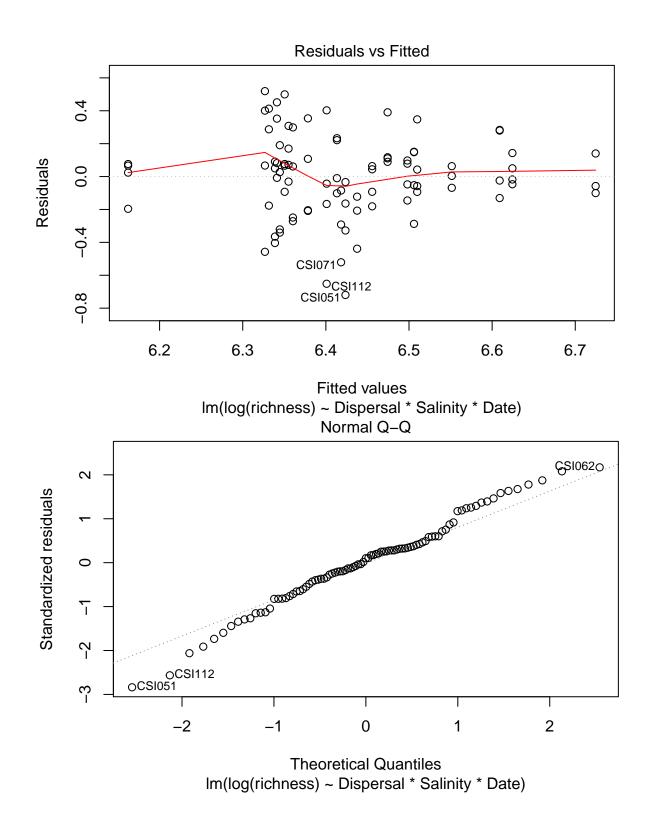
```
ggsave("../figures/pielousj.pdf", plot=last_plot(), device=NULL, path=NULL, scale=1, width=NA, height=N
## Saving 6.5 x 4.5 in image
# Graphing Pielous J - Treatment Salinity SOURCE ONLY
p <- ggplot(csi.div.source, aes(x=Date2, y=J.source, color=as.factor(Number1)))+ scale_color_manual(nam p1=p+geom_smooth(method="lm")
p1 + theme_bw() + theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), axis.line</pre>
```

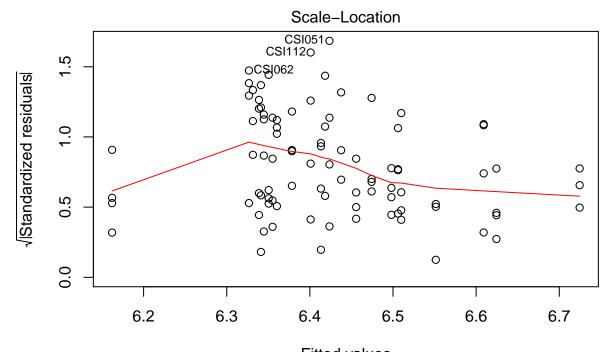


ggsave("../figures/pielousj.source.pdf", plot=last\_plot(), device=NULL, path=NULL, scale=1, width=NA, h

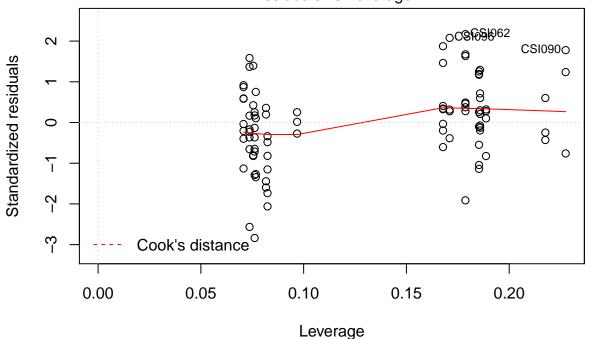
(3) How does salinity/dispersal/date influence bacterial richness?

```
# run full parametric statistical model
richness.lm <- lm(log(richness) ~ Dispersal*Salinity*Date, data = csi_otu.div)
plot(richness.lm)</pre>
```





Fitted values
Im(log(richness) ~ Dispersal \* Salinity \* Date)
Residuals vs Leverage

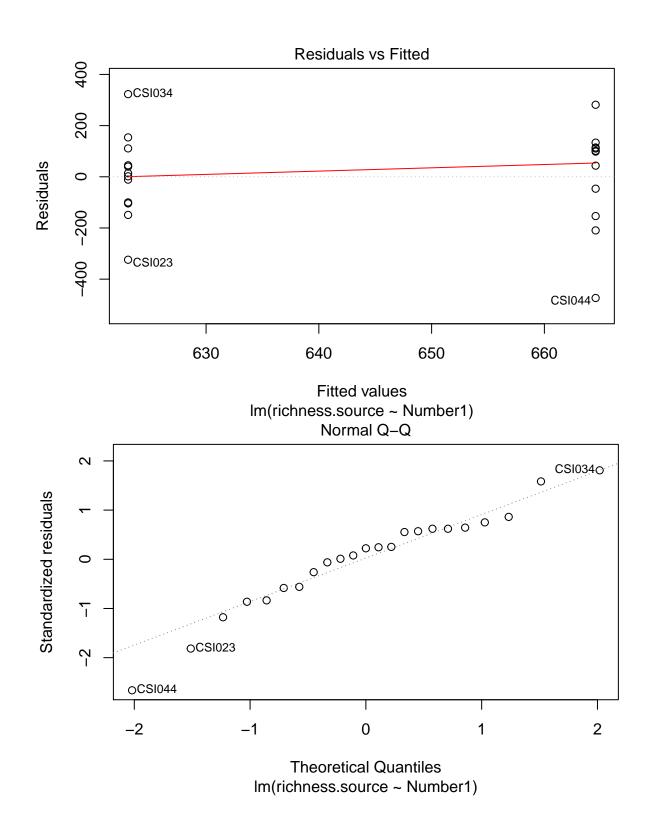


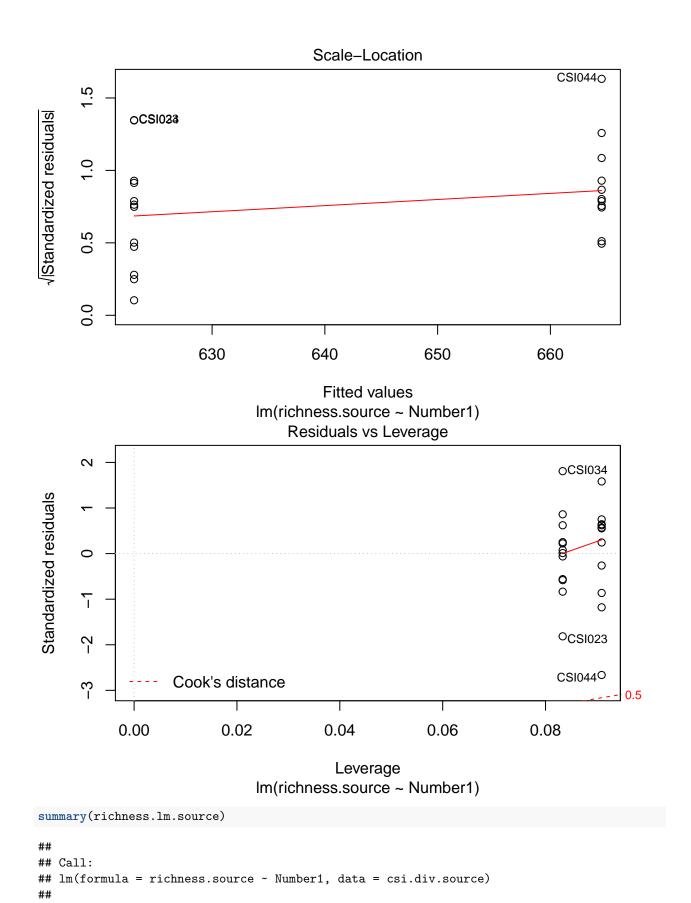
Im(log(richness) ~ Dispersal \* Salinity \* Date)

richness.lm

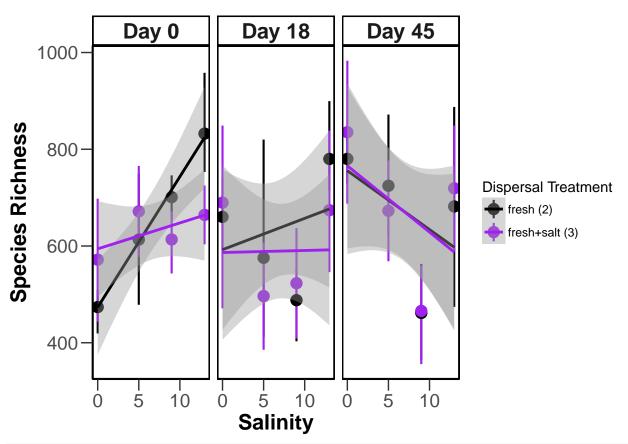
```
##
## Call:
## lm(formula = log(richness) ~ Dispersal * Salinity * Date, data = csi_otu.div)
##
## Coefficients:
```

```
##
                      (Intercept)
                                                        Dispersal
##
                         5.76561
                                                          0.19825
##
                         Salinity
                                                     Date6/29/15
##
                          0.10860
                                                          0.63680
##
                     Date7/26/15
                                              Dispersal:Salinity
##
                                                         -0.03267
                          0.88938
##
           Dispersal:Date6/29/15
                                           Dispersal:Date7/26/15
##
                         -0.22189
                                                         -0.21356
##
            Salinity:Date6/29/15
                                             Salinity:Date7/26/15
##
                         -0.08402
                                                         -0.13607
## Dispersal:Salinity:Date6/29/15
                                  Dispersal:Salinity:Date7/26/15
                          0.02496
                                                          0.03496
anova(richness.lm)
## Analysis of Variance Table
##
## Response: log(richness)
                           Df Sum Sq Mean Sq F value
                                                      Pr(>F)
## Dispersal
                            1 0.0120 0.01203 0.1727 0.678830
## Salinity
                            1 0.0129 0.01287 0.1847 0.668498
## Date
                            2 0.1345 0.06725 0.9656 0.385219
## Dispersal:Salinity
                           1 0.0729 0.07293 1.0471 0.309293
## Dispersal:Date
                           2 0.0251 0.01254 0.1800 0.835593
## Salinity:Date
                           2 0.8250 0.41252 5.9227 0.004011 **
## Dispersal:Salinity:Date 2 0.1143 0.05714 0.8204 0.443968
## Residuals
                          79 5.5024 0.06965
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
# run linear regression measured salinity used instead of 'factor' salinity
richness.reg <- lm(richness~Salinity_real, data = csi_otu.div)
summary(richness.reg)
##
## Call:
## lm(formula = richness ~ Salinity_real, data = csi_otu.div)
## Residuals:
               10 Median
                                3Q
## -344.65 -120.16 -11.76 117.43 357.79
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
                 626.105
                              31.084 20.142
                                              <2e-16 ***
## (Intercept)
                   2.171
                               3.823
                                      0.568
                                                0.571
## Salinity_real
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 166.8 on 89 degrees of freedom
## Multiple R-squared: 0.003612, Adjusted R-squared: -0.007584
## F-statistic: 0.3226 on 1 and 89 DF, p-value: 0.5715
# run for source tanks only
richness.lm.source <- lm(richness.source ~ Number1, data = csi.div.source)
plot(richness.lm.source)
```





```
## Residuals:
##
      Min
               1Q Median
                               30
                                      Max
## -473.55 -102.08 39.92 110.69 322.92
## Coefficients:
              Estimate Std. Error t value Pr(>|t|)
##
## (Intercept) 664.55 56.23 11.818 9.65e-11 ***
                            77.85 -0.533
                -41.46
## Number12
                                               0.6
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 186.5 on 21 degrees of freedom
## Multiple R-squared: 0.01333, Adjusted R-squared: -0.03366
## F-statistic: 0.2837 on 1 and 21 DF, p-value: 0.5999
richness.lm.source
##
## Call:
## lm(formula = richness.source ~ Number1, data = csi.div.source)
## Coefficients:
## (Intercept)
                  Number12
       664.55
                    -41.46
##
anova(richness.lm.source)
## Analysis of Variance Table
## Response: richness.source
            Df Sum Sq Mean Sq F value Pr(>F)
## Number1
             1
                 9866
                         9866 0.2837 0.5999
## Residuals 21 730404
                        34781
# Graphing richness - Treatment Salinity
p <- ggplot(csi_otu.div, aes(x=Salinity, y=richness, color=as.factor(Dispersal)))+ scale_color_manual(n
p1=p+geom_smooth(method="lm")+facet_wrap(~Date2)+facet_grid(. ~ Date2, labeller=labeller(Date2 = labels
p1 + theme_bw() + theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), axis.li
```



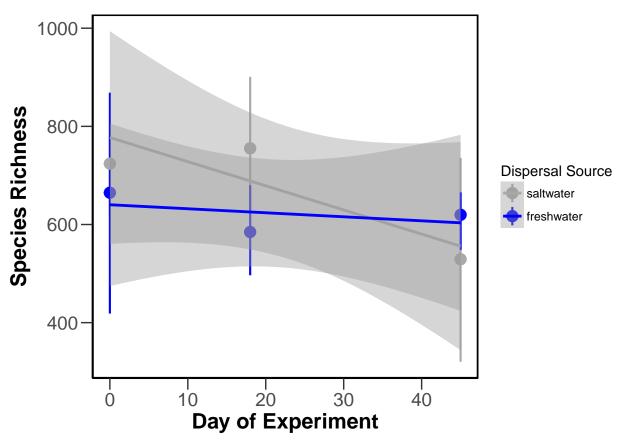
ggsave("../figures/richness.pdf", plot=last\_plot(), device=NULL, path=NULL, scale=1, width=NA, height=NA

```
## Saving 6.5 \times 4.5 in image
```

```
# Graphing richness - Treatment Salinity SOURCE ONLY
```

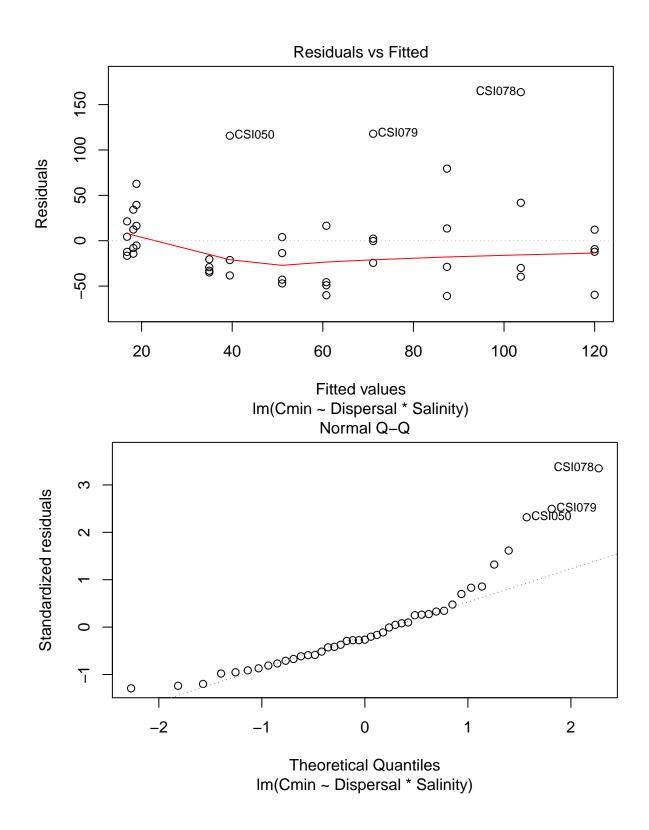
p <- ggplot(csi.div.source, aes(x=Date2, y=richness.source, color=as.factor(Number1)))+ scale\_color\_man p1=p+geom\_smooth(method="lm")

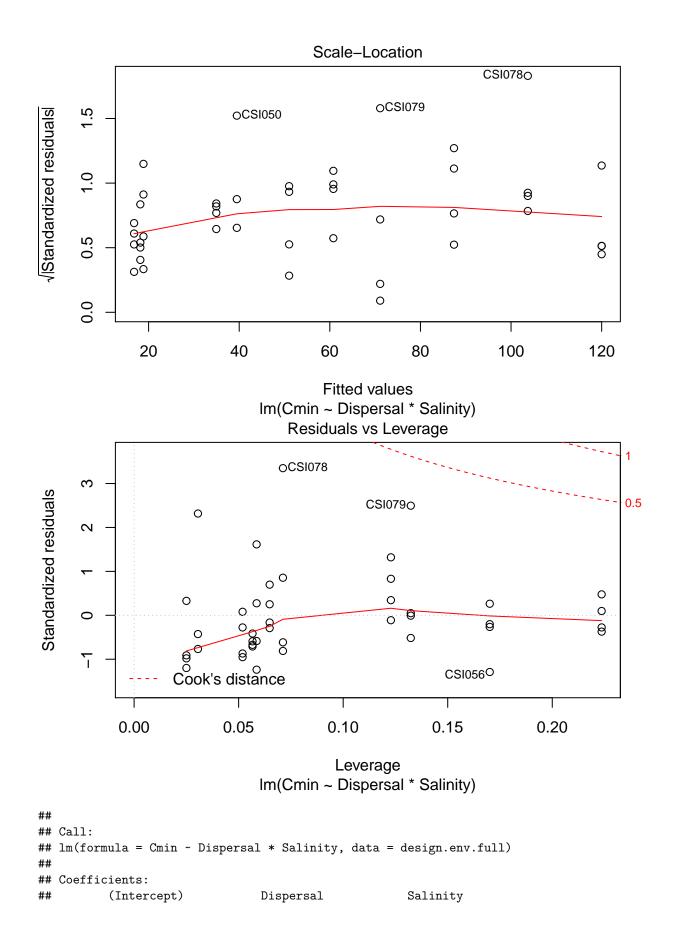
p1 + theme\_bw() + theme(panel.grid.major = element\_blank(), panel.grid.minor = element\_blank(), axis.li



ggsave("../figures/richness.source.pdf", plot=last\_plot(), device=NULL, path=NULL, scale=1, width=NA, h

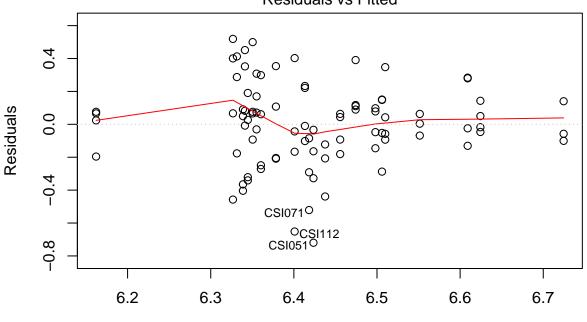
(4) How does salinity and dispersal influence carbon mineralization rates? Calculate C mineralization rate (should be completed already in CSI shared folder) Graph C mineralization Run stat model Cmin~dispersal + salinity + dispersal\*salinity



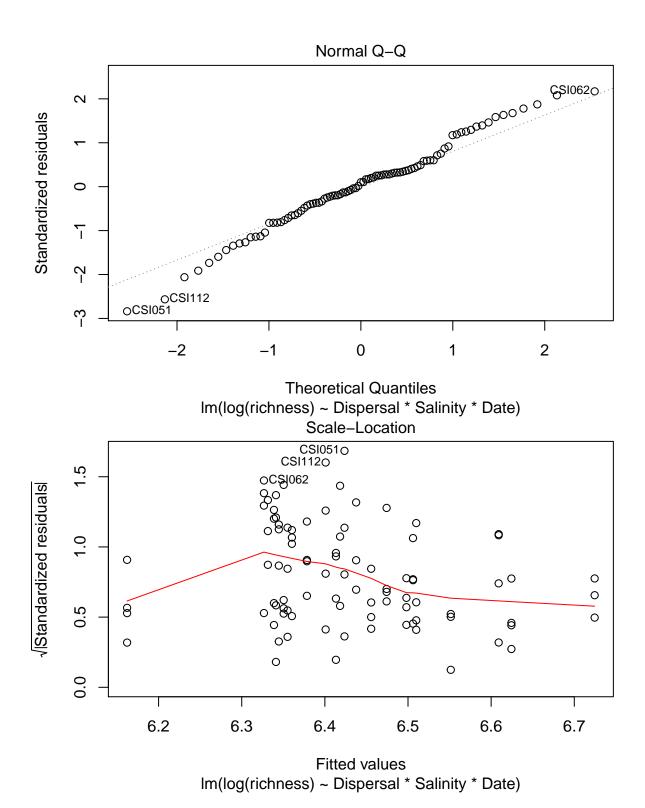


```
120.000
                                  -16.295
                                                        -7.938
##
## Dispersal:Salinity
                1.306
## Analysis of Variance Table
##
## Response: Cmin
                      Df Sum Sq Mean Sq F value
##
## Dispersal
                           6461
                                   6461 2.5121 0.1210545
## Salinity
                       1
                          41108
                                  41108 15.9828 0.0002756 ***
## Dispersal:Salinity 1
                           2902
                                   2902 1.1283 0.2946673
## Residuals
                      39 100309
                                   2572
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## [1]
          91 13451
## [1]
          31 13451
```

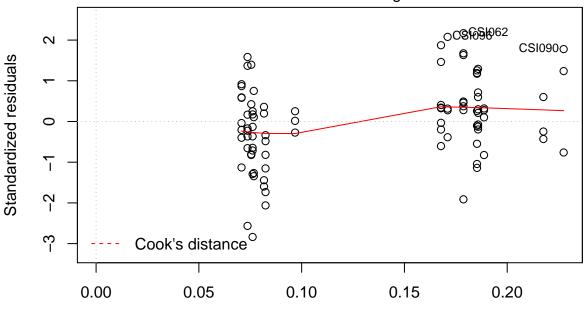
## Residuals vs Fitted



Fitted values Im(log(richness) ~ Dispersal \* Salinity \* Date)



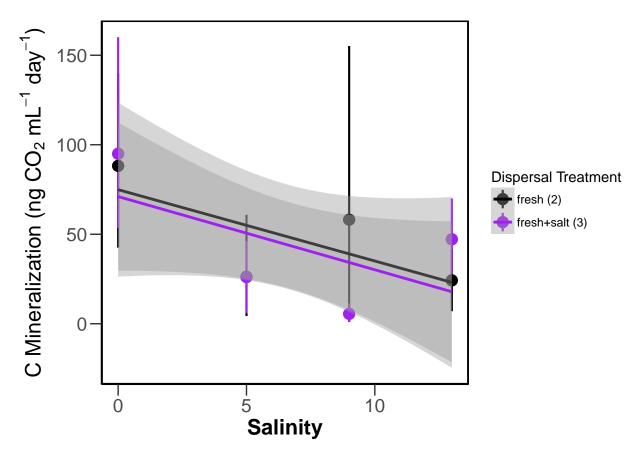
## Residuals vs Leverage



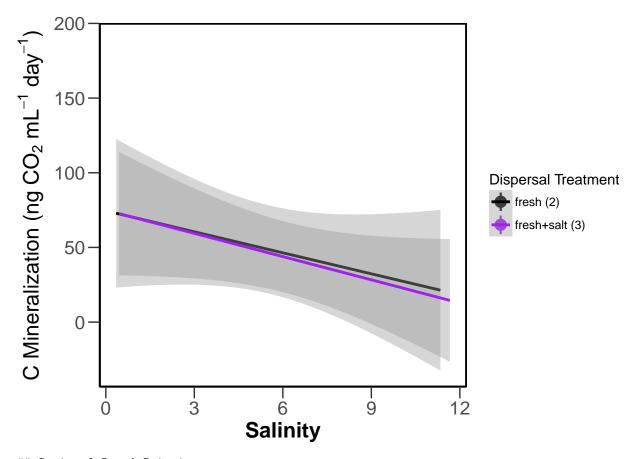
Leverage Im(log(richness) ~ Dispersal \* Salinity \* Date)

```
##
   lm(formula = log(richness) ~ Dispersal * Salinity * Date, data = csi_otu.div)
##
   Coefficients:
##
##
                       (Intercept)
                                                          Dispersal
                                                            0.19825
##
                           5.76561
##
                          Salinity
                                                        Date6/29/15
##
                           0.10860
                                                            0.63680
##
                      Date7/26/15
                                                 Dispersal:Salinity
##
                           0.88938
                                                           -0.03267
##
            Dispersal:Date6/29/15
                                              Dispersal:Date7/26/15
                          -0.22189
##
                                                           -0.21356
##
             Salinity:Date6/29/15
                                               Salinity:Date7/26/15
##
                          -0.08402
                                                           -0.13607
##
   Dispersal:Salinity:Date6/29/15
                                    Dispersal:Salinity:Date7/26/15
##
                           0.02496
                                                            0.03496
   Analysis of Variance Table
##
##
   Response: log(richness)
##
##
                            Df Sum Sq Mean Sq F value
                                                         Pr(>F)
## Dispersal
                             1 0.0120 0.01203 0.1727 0.678830
## Salinity
                             1 0.0129 0.01287
                                                0.1847 0.668498
## Date
                                                0.9656 0.385219
                             2 0.1345 0.06725
## Dispersal:Salinity
                             1 0.0729 0.07293
                                                1.0471 0.309293
## Dispersal:Date
                             2 0.0251 0.01254
                                                0.1800 0.835593
## Salinity:Date
                                                5.9227 0.004011 **
                             2 0.8250 0.41252
## Dispersal:Salinity:Date
                            2 0.1143 0.05714
                                                0.8204 0.443968
## Residuals
                            79 5.5024 0.06965
```

```
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Call:
## lm(formula = Cmin ~ Dispersal * Salinity, data = csi.full.ns.Cmin)
## Coefficients:
##
         (Intercept)
                              Dispersal
                                                  Salinity
             82.6185
                                -3.8559
                                                   -3.7776
##
## Dispersal:Salinity
             -0.1041
##
## Analysis of Variance Table
## Response: Cmin
##
                     Df Sum Sq Mean Sq F value Pr(>F)
## Dispersal
                          206
                               205.8 0.0874 0.76974
                    1
## Salinity
                     1 12012 12011.7 5.1015 0.03219 *
                                  2.0 0.0008 0.97699
## Dispersal:Salinity 1
                           2
                     27 63572 2354.5
## Residuals
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Call:
## lm(formula = Cmin ~ Salinity_real, data = csi.full.ns.Cmin)
##
## Residuals:
   Min
             1Q Median
                           3Q
                                Max
## -51.84 -31.68 -15.30 20.82 118.96
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                74.849
                           15.137 4.945 2.96e-05 ***
                             2.161 -2.301 0.0288 *
## Salinity_real
                -4.973
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 47.01 on 29 degrees of freedom
## Multiple R-squared: 0.1544, Adjusted R-squared: 0.1252
## F-statistic: 5.295 on 1 and 29 DF, p-value: 0.02877
```



## Warning: Removed 31 rows containing missing values (geom\_pointrange).



- ## Saving  $6.5 \times 4.5$  in image
- ## Warning: Removed 31 rows containing missing values (geom\_pointrange).
  - (6) How does salinity and dispersal influence bacterial community composition? (this should be done just combine with your Rmd file and double check) –Complete with source tanks –Complete without source tanks (SFS poster code) Revisit original data set and include source tanks to Rmd file still waiting on full env data from Jo Werba Graph PCoA ordination (include source tanks) salinity=colors, date=shapes, label source tanks Run PERMANOVA to test bacterial community ~ salinity + dispersal + salinity\*dispersal

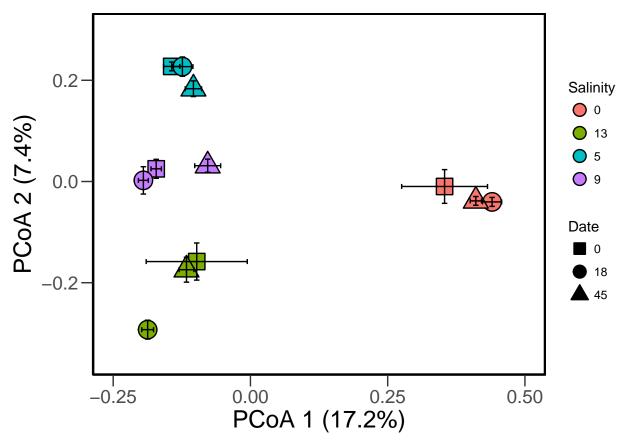
```
## Loading required package: labdsv
## Loading required package: mgcv
## Warning: package 'mgcv' was built under R version 3.2.5
## This is mgcv 1.8-17. For overview type 'help("mgcv-package")'.
##
## Attaching package: 'mgcv'
## The following object is masked from 'package:futile.logger':
##
## scat
## Loading required package: cluster
## Warning: package 'cluster' was built under R version 3.2.5
##
## Attaching package: 'labdsv'
```

```
## The following objects are masked from 'package:ecodist':
##
##
## The following object is masked from 'package:stats':
##
##
      density
##
## Call:
## adonis(formula = csi.full.ns[, -c(1:16)] ~ Date2 * Dispersal *
                                                                 Salinity, data = csi.full.ns, pe
## Permutation: free
## Number of permutations: 1000
## Terms added sequentially (first to last)
##
##
                         Df SumsOfSqs MeanSqs F.Model
                                                        R2
                                                             Pr(>F)
## Date2
                                1.781 1.7812 5.5846 0.05232 0.000999 ***
## Dispersal
                                1
## Salinity
                          1
                                3.905 3.9045 12.2420 0.11469 0.000999 ***
## Date2:Dispersal
                          1
                                0.162  0.1617  0.5070  0.00475  1.000000
## Date2:Salinity
                          1
                               0.917  0.9172  2.8759  0.02694  0.001998 **
                               0.297 0.2966 0.9298 0.00871 0.519481
## Dispersal:Salinity
                          1
## Date2:Dispersal:Salinity 1
                               ## Residuals
                               26.472 0.3189
                         83
                                                    0.77757
## Total
                         90
                               34.045
                                                    1.00000
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## [1] 17.2
## [1] 7.4
```

## PCoA Plot Design without Source

## [1] TRUE

## Plot (ggplot)



## Saving 6.5 x 4.5 in image

## PCoA sources only

```
Date Date2 Replicate Number
               CSI_ID
                                                             Tank_Name
## CSI001 ECU_CSI_001 11-Jun-15
                                     0
                                                      1 A1_2015-June11
                                               Α
  CSI012 ECU_CSI_012 11-Jun-15
                                     0
                                               В
                                                      1 B1_2015-June11
  CSI022 ECU_CSI_023 11-Jun-15
                                               C
                                                      1 C1_2015-June11
## CSI044 ECU_CSI_221 26-Jul-15
                                    45
                                                      1 A1_2015-July25
                                               Α
## CSI055 ECU_CSI_232 26-Jul-15
                                    45
                                               В
                                                      1 B1_2015-July25
  CSI065 ECU_CSI_243 26-Jul-15
                                    45
                                               С
                                                      1 C1_2015-July25
  CSI076 ECU_CSI_254 26-Jul-15
                                    45
                                               D
                                                      1 D1_2015-July25
          Salinity Dispersal
##
                               Otu00001
                                             Otu00002
                                                          Otu00003
                    Source13 0.04083212 2.345326e-05 8.499461e-02
## CSI001
                13
## CSI012
                13
                    Source13 0.06285793 2.932450e-04 5.882150e-03
## CSI022
                13
                    Source13 0.06499849 6.454667e-05 3.068118e-02
## CSI044
                    Source13 0.04923010 0.000000e+00 1.971570e-05
                13
## CSI055
                    Source13 0.03169037 0.000000e+00 4.302833e-05
## CSI065
                    Source13 0.07223630 1.512802e-04 2.987784e-03
## CSI076
                13
                    Source13 0.08660461 0.000000e+00 5.766896e-02
              Otu00004
                           Otu00005
                                         Otu00006
                                                      Otu00007
## CSI001 3.044233e-02 0.0196303767 0.0019466204 4.456119e-04 0.000000e+00
## CSI012 3.900159e-02 0.0061926447 0.0014834748 1.207479e-04 8.624853e-05
```

```
## CSI022 2.730324e-02 0.0100047334 0.0032488489 9.897156e-04 0.000000e+00
## CSI044 1.971570e-05 0.0216084068 0.1359200331 1.971570e-05 0.000000e+00
  CSI055 1.979303e-03 0.0213635679 0.0262042555 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00 0.1233311902 0.0740516622 0.000000e+00 0.000000e+00
   CSI076 5.000867e-03 0.0239058796 0.0442851362 2.890675e-05 0.000000e+00
              Otu00009
                           Otu00010
                                        Otu00011
##
                                                    Otu00012
                                                                  Otu00013
  CSI001 2.251513e-03 1.747268e-02 1.644073e-02 0.004104320 4.198133e-03
## CSI012 7.244877e-04 5.951149e-03 2.230387e-02 0.005243911 1.198855e-02
  CSI022 1.183356e-03 3.246697e-02 2.297861e-02 0.030250871 4.539782e-03
  CSI044 0.000000e+00 2.405315e-03 9.719840e-03 0.001498393 1.971570e-05
  CSI055 5.905639e-02 5.686194e-02 1.204793e-03 0.001333878 2.151417e-05
   CSI065 0.000000e+00 0.000000e+00 2.080103e-03 0.018304905 3.782005e-05
   CSI076 3.396543e-02 5.781349e-05 2.283633e-03 0.001127363 0.000000e+00
##
              Otu00014
                           Otu00015
                                        Otu00016
                                                     Otu00017
  CSI001 0.0004690652 0.0015479150 0.0018293541 0.000000e+00 7.505042e-04
  CSI012 0.0008969848 0.0112295591 0.0016904713 0.000000e+00 9.142345e-04
  CSI022 0.0094022979 0.0118981023 0.0009466845 0.000000e+00 2.194587e-03
  CSI044 0.0000000000 0.0020307171 0.4356775300 0.000000e+00 1.971570e-05
  CSI055 0.0033562101 0.0094662335 0.0001505992 0.000000e+00 2.119576e-01
  CSI065 0.0000000000 0.0078665709 0.0010967815 0.000000e+00 2.647404e-04
##
  CSI076 0.0009828294 0.0116205122 0.0000000000 2.890675e-05 2.890675e-05
              Ot:1100019
                           Otu00020
                                        0t_{11}00021
                                                     Ot:1100022
## CSI001 2.978564e-03 2.345326e-05 0.000000e+00 0.0767859656 6.449646e-03
  CSI012 2.984199e-03 1.724971e-05 0.000000e+00 0.0644794039 2.130339e-02
  CSI022 1.318904e-02 2.151556e-05 2.797022e-04 0.0315633203 3.775980e-02
  CSI044 4.140297e-04 0.000000e+00 1.971570e-04 0.0003154512 0.000000e+00
  CSI055 4.776145e-03 0.000000e+00 0.000000e+00 0.0016565909 0.000000e+00
   CSI065 1.588442e-03 0.000000e+00 0.000000e+00 0.0004160206 3.782005e-05
   CSI076 7.486847e-03 0.000000e+00 0.000000e+00 0.0002890675 2.023472e-04
##
              Otu00024
                           Otu00025
                                        Otu00026
                                                     Otu00027
                                                                   Otu00028
  CSI001 0.000000e+00 4.925184e-04 0.000000e+00 3.752521e-04 0.0046671983
  CSI012 0.000000e+00 8.624853e-05 1.724971e-05 5.174912e-05 0.0188366798
   CSI022 0.000000e+00 6.454667e-04 0.000000e+00 1.327510e-02 0.0044322045
  CSI044 0.000000e+00 2.109580e-03 0.000000e+00 3.943140e-05 0.0001774413
   CSI055 2.151417e-05 2.151417e-04 0.000000e+00 2.151417e-05 0.0131021278
  CSI065 0.000000e+00 5.975568e-03 0.000000e+00 3.286563e-02 0.0004160206
  CSI076 1.156270e-04 0.000000e+00 1.387524e-03 1.734405e-04 0.0079782621
##
                          Otu00030
                                       Otu00031
             Ot:1100029
                                                    Ot:1100032
  CSI001 0.008818425 2.345326e-05 0.000000e+00 2.415686e-03 0.000000e+00
  CSI012 0.008003864 3.449941e-05 0.000000e+00 1.875043e-02 5.174912e-05
  CSIO22 0.031541805 2.151556e-05 0.000000e+00 2.108524e-03 2.151556e-05
  CSI044 0.046193884 1.971570e-05 1.971570e-05 1.971570e-05 0.000000e+00
  CSI055 0.002215959 2.151417e-05 0.000000e+00 0.000000e+00 6.454250e-05
  CSI065 0.051246171 0.000000e+00 3.782005e-05 0.000000e+00 0.000000e+00
  CSI076 0.009972828 0.000000e+00 0.000000e+00 0.000000e+00 2.890675e-05
##
              Otu00034
                           Otu00035
                                        Otu00036
                                                     Otu00037
                                                                   Otu00038
## CSI001 0.0026971246 4.273184e-02 0.000000e+00 0.000000e+00 2.110793e-03
  CSI012 0.0008107362 6.803284e-02 3.449941e-05 0.000000e+00 9.314842e-04
  CSI022 0.0008391067 2.261285e-02 2.151556e-05 0.000000e+00 3.571582e-03
## CSI044 0.0000197157 3.174228e-03 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.0030980401 7.529958e-04 0.000000e+00 0.000000e+00 8.605667e-05
  CSI065 0.0015884422 3.782005e-05 0.000000e+00 0.000000e+00 4.727507e-03
  CSI076 0.0021680060 1.240099e-02 2.890675e-05 0.000000e+00 4.249292e-03
##
              Otu00039
                           Otu00040
                                        Otu00041
                                                     Otu00042
                                                                   0t_{11}00043
```

```
## CSI001 5.863314e-04 2.345326e-05 4.690652e-05 0.000000e+00 0.000000e+00
## CSI012 7.108604e-02 0.000000e+00 1.017733e-03 1.724971e-05 3.449941e-05
  CSI022 4.690391e-03 2.151556e-05 4.303111e-05 2.151556e-05 1.075778e-04
## CSI044 0.000000e+00 1.971570e-05 3.943140e-05 0.000000e+00 0.000000e+00
  CSI055 2.151417e-05 2.151417e-05 0.000000e+00 2.151417e-05 4.733117e-04
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 5.781349e-05 5.781349e-05 1.242990e-03 0.000000e+00 1.156270e-04
##
              Ot.1100044
                           Otu00045 Otu00046
                                                 Otu00047 Otu00048
## CSI001 0.000000000 0.0008443173
                                           0 1.536188e-02
                                                                  0
                                                                  0
  CSI012 0.0004139930 0.0012937280
                                           0 5.709653e-03
## CSI022 0.0012263867 0.0207625113
                                           0 9.466845e-04
                                                                  0
                                                                  0
## CSI044 0.0000394314 0.0000000000
                                           0 0.00000e+00
## CSI055 0.0003442267 0.0000000000
                                           0 1.527506e-02
                                                                  0
                                           0 7.639651e-03
## CSI065 0.0138043190 0.0000000000
                                                                  0
  CSI076 0.0072266867 0.0001156270
                                           0 9.134532e-03
                                                                  0
##
              Otu00049
                           Otu00050 Otu00051
                                                  Otu00052
                                                               Otu00053
## CSI001 0.000000e+00 4.690652e-05
                                           0 0.000000e+00 1.876261e-04
  CSI012 0.000000e+00 5.174912e-05
                                           0 3.449941e-05 1.207479e-04
                                           0 0.000000e+00 0.000000e+00
## CSI022 0.000000e+00 1.936400e-04
## CSI044 0.000000e+00 3.943140e-05
                                           0 0.000000e+00 8.477751e-04
## CSI055 0.000000e+00 6.454250e-05
                                           0 0.000000e+00 0.000000e+00
## CSI065 0.000000e+00 1.891003e-04
                                           0 0.000000e+00 5.673008e-04
## CSI076 0.000000e+00 2.312540e-04
                                           0 0.000000e+00 0.000000e+00
              Otu00054
                           Otu00055
                                        Otu00056
                                                      Ot:1100057
                                                                   Ot:1100058
## CSI001 2.345326e-05 0.0271119659 2.345326e-04 0.000000e+00 0.000000e+00
## CSI012 3.449941e-05 0.0057786518 1.724971e-05 0.000000e+00 3.449941e-05
## CSI022 1.075778e-04 0.0005378889 0.000000e+00 4.303111e-05 2.151556e-05
## CSI044 5.914710e-05 0.0000985785 0.000000e+00 0.000000e+00 0.000000e+00
## CSI055 6.454250e-05 0.0055291409 0.000000e+00 0.000000e+00 2.151417e-05
  CSI065 1.134602e-04 0.0019666427 0.000000e+00 1.176204e-02 7.715291e-03
  CSI076 5.781349e-05 0.0081227959 0.000000e+00 5.781349e-05 2.113083e-02
##
              Otu00059
                           Otu00060 Otu00061
                                                  Otu00062
                                                               0 \pm 1100063
  CSI001 1.383742e-03 0.000000e+00
                                           0 2.345326e-05 1.172663e-04
## CSI012 1.086732e-03 0.000000e+00
                                           0 5.450907e-03 2.069965e-04
## CSI022 0.000000e+00 2.151556e-05
                                           0 9.897156e-04 1.506089e-04
## CSI044 0.000000e+00 1.971570e-05
                                           0 5.914710e-05 0.000000e+00
## CSI055 4.302833e-05 0.000000e+00
                                           0 0.000000e+00 4.302833e-05
## CSI065 7.564010e-05 0.000000e+00
                                           0 0.000000e+00 1.512802e-04
## CSI076 2.023472e-04 0.000000e+00
                                           0 0.000000e+00 3.208649e-03
                                        Otu00066
##
              Otu00064
                           Otu00065
                                                      Otu00067
                                                                   Dt:1100068
## CSI001 0.0016182748 4.456119e-04 7.974108e-04 2.579858e-04 0.0205919602
## CSI012 0.0025874560 0.000000e+00 1.724971e-05 1.379977e-04 0.0049334161
## CSI022 0.0004733422 2.151556e-05 0.000000e+00 2.797022e-04 0.0218598046
## CSI044 0.0001774413 0.000000e+00 1.971570e-05 0.000000e+00 0.0000000000
## CSI055 0.0217293087 0.000000e+00 0.000000e+00 0.000000e+00 0.0001721133
## CSI065 0.0050678870 0.000000e+00 0.000000e+00 0.000000e+00 0.0100601339
##
  CSI076 0.0094235995 0.000000e+00 0.000000e+00 8.672024e-05 0.0000000000
##
             Otu00069
                          Otu00070
                                       Otu00071
                                                     Otu00072
## CSI001 0.00000e+00 0.000000e+00 1.829354e-03 0.0007270510 0.0030723768
## CSI012 0.00000e+00 0.000000e+00 1.897468e-04 0.0047436694 0.0063478921
## CSI022 0.00000e+00 0.000000e+00 2.366711e-04 0.0133826757 0.0037867378
## CSI044 1.97157e-05 0.000000e+00 0.000000e+00 0.0003154512 0.0001182942
## CSI055 0.00000e+00 0.000000e+00 1.441449e-03 0.0004948258 0.0028398701
## CSI065 0.00000e+00 0.000000e+00 0.000000e+00 0.0020422828 0.0032525245
```

```
## CSI076 0.00000e+00 0.000000e+00 1.156270e-04 0.0088743713 0.0020812858
##
              Otu00074
                           Otu00075
                                       Ot:1100076
                                                    Ot:1100077
                                                                 0t.11000078
## CSI001 0.000000e+00 9.146770e-04 4.925184e-04 0.000000000 9.381303e-05
## CSI012 0.000000e+00 7.814117e-03 0.000000e+00 0.000000000 0.000000e+00
## CSI022 0.000000e+00 1.936400e-03 5.809200e-04 0.002603382 0.000000e+00
## CSI044 0.000000e+00 5.914710e-05 0.000000e+00 0.000000000 9.857850e-05
## CSI055 0.000000e+00 0.000000e+00 4.302833e-05 0.000000000 5.787311e-03
## CSI065 3.782005e-05 4.538406e-04 0.000000e+00 0.000000000 0.000000e+00
## CSI076 2.890675e-05 2.890675e-05 0.000000e+00 0.000231254 6.937619e-03
##
              Otu00079
                           Otu00080
                                       Otu00081
                                                     Otu00082
## CSI001 0.000000e+00 0.0000000000 4.737558e-03 0.000000e+00 0.03140391
## CSI012 0.000000e+00 0.0004312427 1.274753e-02 0.000000e+00 0.00000000
## CSI022 0.000000e+00 0.0001290933 1.310297e-02 2.151556e-05 0.00000000
## CSI044 1.971570e-05 0.0009660693 1.971570e-05 0.000000e+00 0.00000000
## CSI055 2.151417e-05 0.0031410684 0.000000e+00 2.151417e-05 0.00000000
  CSI065 0.000000e+00 0.0209144889 3.782005e-05 0.000000e+00 0.00000000
  CSI076 0.000000e+00 0.0008961092 0.000000e+00 0.000000e+00 0.00000000
              Otu00084
                           Otu00085
                                       Otu00086
##
                                                     Otu00087 Otu00088
## CSI001 2.345326e-05 0.0078333881 1.641728e-04 0.000000e+00
                                                                     0
## CSI012 0.000000e+00 0.0038294349 0.000000e+00 1.724971e-05
                                                                     0
## CSI022 0.000000e+00 0.0630405783 0.000000e+00 4.303111e-05
                                                                     0
## CSI044 0.000000e+00 0.0000197157 1.478677e-03 1.971570e-05
## CSI055 0.000000e+00 0.0001505992 1.333878e-03 0.000000e+00
                                                                     0
  CSI065 0.000000e+00 0.0004538406 3.782005e-05 0.000000e+00
                                                                     0
  CSI076 0.000000e+00 0.0044516390 0.000000e+00 0.000000e+00
                                                                     0
              Otu00089
                           Otu00090
                                       Otu00091
                                                     Otu00092
                                                                Otu00093
## CSI001 0.000000e+00 2.345326e-05 0.000000e+00 0.0039401473 0.00000e+00
## CSI012 0.000000e+00 3.449941e-05 0.000000e+00 0.0005002415 0.00000e+00
## CSI022 2.323680e-03 0.000000e+00 0.000000e+00 0.0076165067 0.00000e+00
## CSI044 0.000000e+00 0.000000e+00 1.971570e-05 0.0000000000 3.94314e-05
## CSI055 0.000000e+00 1.721133e-04 0.000000e+00 0.0000645425 0.00000e+00
  CSI076 2.890675e-05 0.000000e+00 0.000000e+00 0.0116494190 0.00000e+00
##
            Otu00094
                         Otu00095
                                      Otu00096
                                                    Otu00097
                                                                 0 \pm 1100098
## CSI001 0.000000000 0.0014775552 1.289929e-03 2.345326e-05 0.000000e+00
## CSI012 0.001155730 0.0008624853 3.708687e-03 0.000000e+00 0.000000e+00
## CSI022 0.004066440 0.0007315289 1.725548e-02 2.151556e-03 0.000000e+00
## CSI044 0.000000000 0.0028390607 0.000000e+00 2.365884e-04 0.000000e+00
  CSI055 0.000000000 0.0005378542 0.000000e+00 0.000000e+00 2.151417e-05
  CSI065 0.000000000 0.0011346016 0.000000e+00 2.647404e-04 0.000000e+00
  CSI076 0.000000000 0.0016765913 6.128230e-03 0.000000e+00 0.000000e+00
              Otu00099 Otu00100
##
                                   Ot:1100101
                                                 Ot:1100102
                                                              0t_{11}00103
## CSI001 2.345326e-05
                              0 0.0005628782 0.0023453258 4.643745e-03
                              0 0.0002069965 0.0020354654 3.622438e-04
## CSI012 0.000000e+00
## CSI022 0.000000e+00
                              0 0.0002581867 0.0090580490 1.118809e-03
                              0 0.000000000 0.0000197157 0.000000e+00
## CSI044 0.000000e+00
## CSI055 0.000000e+00
                              0 0.0064112218 0.0003227125 2.495643e-02
  CSI065 3.782005e-05
                              0 0.000000000 0.0003025604 0.000000e+00
  CSI076 0.000000e+00
                              0 0.0023125397 0.0003468810 1.647685e-03
              Otu00104
                          Otu00105
                                      Otu00106
                                                    Otu00107
                                                                 Otu00108
## CSI001 0.000000e+00 0.00000e+00 1.407195e-04 0.000000e+00 0.000000e+00
## CSI012 1.724971e-05 0.00000e+00 1.724971e-05 0.000000e+00 5.174912e-05
## CSI022 0.000000e+00 0.00000e+00 5.013124e-03 4.303111e-05 0.000000e+00
## CSI044 0.000000e+00 1.97157e-05 1.971570e-05 1.971570e-05 3.943140e-05
```

```
## CSI055 0.000000e+00 0.00000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00 0.00000e+00 2.193563e-03 0.000000e+00 3.782005e-05
  CSI076 0.000000e+00 0.00000e+00 0.000000e+00 2.890675e-05 0.000000e+00
##
             Otu00109
                          Otu00110
                                                    Otu00112
                                       0t.1100111
                                                                 Ot:1100113
  CSI001 0.00000e+00 1.360289e-03 0.000000e+00 0.000000e+00 0.000000e+00
## CSI012 0.00000e+00 3.277444e-04 1.207479e-04 0.000000e+00 1.724971e-05
  CSI022 0.00000e+00 4.303111e-05 2.151556e-05 0.000000e+00 0.000000e+00
## CSI044 1.97157e-05 3.943140e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.00000e+00 2.811902e-02 0.000000e+00 4.302833e-05 0.000000e+00
  CSI065 0.00000e+00 2.269203e-04 0.000000e+00 3.782005e-05 0.000000e+00
   CSI076 0.00000e+00 5.607909e-03 0.000000e+00 2.890675e-05 0.000000e+00
              Otu00114
                           Otu00115
                                        Otu00116
                                                     Otu00117
  CSI001 0.000000e+00 2.486045e-03 0.000000e+00 0.000000e+00 1.592476e-02
  CSI012 0.000000e+00 2.104464e-03 8.624853e-05 0.000000e+00 4.312427e-04
## CSI022 2.151556e-05 1.054262e-03 4.303111e-05 0.000000e+00 2.581867e-04
## CSI044 0.000000e+00 0.000000e+00 3.943140e-05 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 4.302833e-05 0.000000e+00 2.151417e-05 0.000000e+00
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 5.781349e-05 0.000000e+00 0.000000e+00 2.890675e-05
              Otu00119
                           Otu00120
                                        Otu00121
                                                     Otu00122
  CSI001 5.159717e-04 0.000000e+00 0.0003517989 2.345326e-04 0.0097565552
  CSI012 2.414959e-04 0.000000e+00 0.0007589871 0.000000e+00 0.0002069965
## CSI022 7.960756e-04 0.000000e+00 0.0018933689 9.036533e-04 0.0008175911
## CSI044 0.000000e+00 0.000000e+00 0.0000000000 5.126082e-04 0.0000000000
  CSI055 0.000000e+00 0.000000e+00 0.0000000000 1.871733e-03 0.0000000000
  CSI065 3.782005e-05 0.000000e+00 0.0315419235 7.564010e-04 0.0000000000
  CSI076 0.000000e+00 0.000000e+00 0.0000000000 5.087587e-03 0.0000000000
             Otu00124
                          Otu00125
                                       Otu00126
                                                    Otu00127
                                                                  Otu00128
  CSI001 0.010295980 0.0028143909 0.000000e+00 4.690652e-05 0.000000e+00
  CSI012 0.001276478 0.0006037397 0.000000e+00 5.174912e-05 0.000000e+00
## CSI022 0.003205818 0.0008391067 0.000000e+00 2.151556e-05 0.000000e+00
  CSI044 0.001537825 0.0006703338 0.000000e+00 1.971570e-05 4.731768e-04
  CSI055 0.006023967 0.0030119834 0.000000e+00 4.302833e-05 2.151417e-05
  CSI065 0.005030067 0.0040467456 0.000000e+00 3.782005e-05 0.000000e+00
   CSI076 0.007226687 0.0022258195 0.000000e+00 8.672024e-05 0.000000e+00
                                                 Otu00132
              Otu00129 Otu00130
                                    Otu00131
                                                              Ot:1100133
## CSI001 0.000000e+00
                              0 0.000000e+00 2.345326e-05 0.000000e+00
## CSI012 0.000000e+00
                              0 1.724971e-05 0.000000e+00 0.000000e+00
                              0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI022 0.000000e+00
                              0 3.943140e-05 0.000000e+00 0.000000e+00
## CSI044 1.971570e-05
                              0 2.151417e-05 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
  CSI065 0.000000e+00
                              0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 2.890675e-05
                              0 0.000000e+00 0.000000e+00 0.000000e+00
              Otu00134
                           Otu00135
                                        Otu00136
                                                     Otu00137
                                                                   Otu00138
##
## CSI001 0.000000e+00 0.000000e+00 6.801445e-04 0.000000e+00 4.690652e-04
## CSI012 3.449941e-05 1.724971e-05 3.622438e-04 0.000000e+00 5.174912e-05
## CSI022 6.454667e-05 1.290933e-04 7.530445e-04 2.151556e-05 4.303111e-04
## CSI044 9.857850e-05 0.000000e+00 0.000000e+00 0.000000e+00 1.971570e-05
## CSI055 8.605667e-05 3.442267e-04 4.302833e-05 2.151417e-05 1.269336e-03
  CSI065 3.782005e-05 3.986234e-02 1.928823e-03 1.134602e-04 7.564010e-05
  CSI076 2.890675e-05 2.052379e-03 2.312540e-04 0.000000e+00 1.364398e-02
##
              Otu00139
                           Otu00140
                                        Otu00141 Otu00142
                                                              Otu00143
## CSI001 1.571368e-03 3.283456e-04 0.000000e+00
                                                        0 3.283456e-04
## CSI012 1.966467e-03 2.138964e-02 6.899883e-05
                                                        0 3.104947e-04
```

```
## CSI022 2.151556e-05 1.075778e-04 0.000000e+00
                                                         0 5.163733e-04
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0 5.342955e-03
  CSI055 0.000000e+00 2.151417e-05 0.000000e+00
                                                         0 5.593683e-04
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0 8.963352e-03
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0 4.220385e-03
                           Otu00145
##
              Otu00144
                                        Otu00146
                                                      Otu00147
                                                                   Otu00148
  CSI001 2.345326e-05 0.000000e+00 1.360289e-03 2.345326e-05 0.000000e+00
## CSI012 1.724971e-05 0.000000e+00 5.778652e-03 3.449941e-05 0.000000e+00
  CSI022 0.000000e+00 0.000000e+00 1.092990e-02 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 7.886280e-05 0.000000e+00 1.971570e-05
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00 3.399238e-03 2.151417e-05
   CSI065 0.000000e+00 0.000000e+00 1.512802e-04 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00 1.734405e-04 3.474591e-02 0.000000e+00
              Otu00149
                                        Otu00151 Otu00152
##
                           Otu00150
                                                               Otu00153
  CSI001 0.0020404334 0.000000e+00 2.345326e-05
                                                         0 0.000000e+00
  CSI012 0.0003967433 0.000000e+00 1.379977e-04
                                                         0 0.00000e+00
  CSI022 0.0004948578 0.000000e+00 2.151556e-05
                                                         0 0.00000e+00
   CSI044 0.0001971570 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
  CSI055 0.0038080076 0.000000e+00 2.151417e-05
                                                         0 6.454250e-05
  CSI065 0.0003403805 0.000000e+00 0.000000e+00
                                                         0 7.564010e-05
  CSI076 0.0077759149 0.000000e+00 0.000000e+00
##
                                                         0 0.000000e+00
##
              Ot:1100154
                           Ot:1100155
                                        Ot:1100156
                                                      Ot:1100157
## CSI001 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI012 0.000000e+00 0.000000e+00 3.449941e-05 0.000000e+00 1.724971e-05
  CSI022 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 2.151417e-05 0.000000e+00 0.000000e+00 0.000000e+00
   CSI065 1.134602e-04 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI076 3.159507e-02 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
          Otu00159 Otu00160
                                Otu00161
                                              Otu00162
                                                           Otu00163
## CSI001
                 0
                          0 0.0022749660 0.000000e+00 0.000000e+00
##
  CSI012
                 0
                          0 0.0061063962 1.724971e-05 1.034982e-04
## CSI022
                 0
                          0 0.0010542622 0.000000e+00 0.000000e+00
                 0
                          0 0.0002563041 0.000000e+00 0.000000e+00
## CSI044
## CSI055
                 0
                          0 0.0032056109 0.000000e+00 0.000000e+00
                          0 0.0026474037 0.000000e+00 0.000000e+00
## CST065
                 0
##
  CSI076
                 0
                          0 0.0070243395 0.000000e+00 0.000000e+00
##
              Otu00164
                           Otu00165
                                                     Otu00167
                                        Ot:1100166
                                                                  Ot:1100168
## CSI001 0.000000e+00 0.000000e+00 4.456119e-04 0.00000e+00 0.0023922323
  CSI012 0.000000e+00 0.000000e+00 9.314842e-04 0.00000e+00 0.0006037397
  CSI022 0.000000e+00 0.000000e+00 1.936400e-04 0.00000e+00 0.0037006756
  CSI044 0.000000e+00 0.000000e+00 5.914710e-05 1.97157e-05 0.0002365884
  CSI055 0.000000e+00 0.000000e+00 6.454250e-05 0.00000e+00 0.0045610034
  CSI065 0.000000e+00 3.782005e-05 7.564010e-05 0.00000e+00 0.0484474869
  CSI076 0.000000e+00 0.000000e+00 6.070417e-04 0.00000e+00 0.0075157542
##
              Otu00169 Otu00170
                                    Otu00171 Otu00172
                                                           Otu00173
## CSI001 0.000000e+00
                              0 2.110793e-04
                                                     0 8.443173e-04
  CSI012 1.724971e-05
                              0 3.915683e-03
                                                     0 1.845719e-03
## CSI022 0.000000e+00
                              0 1.613667e-03
                                                     0 1.510392e-02
## CSI044 0.000000e+00
                              0 0.00000e+00
                                                     0 0.00000e+00
## CSI055 0.000000e+00
                              0 2.581700e-04
                                                     0.0.000000e+00
## CSI065 0.000000e+00
                              0 1.512802e-04
                                                     0 0.00000e+00
                                                     0 2.890675e-05
## CSI076 0.000000e+00
                              0 2.890675e-05
##
              Otu00174
                           Otu00175
                                        Otu00176
                                                      Otu00177
                                                                   Otu00178
```

```
## CSI001 1.172663e-04 0.000000e+00 0.000000e+00 0.000000e+00 2.110793e-04
  CSI012 6.899883e-05 1.724971e-05 0.000000e+00 0.000000e+00 1.897468e-04
  CSI022 0.000000e+00 2.366711e-04 0.000000e+00 0.000000e+00 7.745600e-04
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 1.182942e-04 5.914710e-05
  CSI055 1.269336e-03 0.000000e+00 1.355393e-03 0.000000e+00 1.290850e-04
  CSI065 0.000000e+00 1.096782e-03 0.000000e+00 0.000000e+00 5.673008e-04
   CSI076 2.890675e-05 2.139099e-03 0.000000e+00 2.890675e-05 4.307105e-03
                                                      Otu00182 Otu00183
##
              Ot:1100179
                           Otu00180
                                         Otu00181
  CSI001 2.579858e-04 2.814391e-04 2.345326e-05 0.000000e+00
                                                                       0
                                                                       0
  CSI012 1.724971e-05 0.000000e+00 5.174912e-04 0.000000e+00
  CSI022 6.454667e-05 4.303111e-05 4.841000e-03 0.000000e+00
                                                                       0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 3.943140e-05
                                                                       0
  CSI055 0.000000e+00 2.151417e-05 0.000000e+00 2.237473e-03
                                                                       0
   CSI065 1.512802e-04 0.000000e+00 4.160206e-04 6.353769e-03
                                                                       0
  CSI076 6.793086e-03 0.000000e+00 0.000000e+00 1.401977e-02
                                                                       0
##
              Otu00184
                           Otu00185
                                         Otu00186
                                                      Otu00187 Otu00188
  CSI001 2.345326e-05 1.172663e-02 3.048923e-04 9.381303e-05
                                                                       0
   CSI012 2.932450e-04 1.724971e-05 3.622438e-04 0.000000e+00
                                                                       0
  CSI022 2.216102e-03 1.813761e-02 1.936400e-04 0.000000e+00
                                                                       0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 4.653986e-03 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
##
          Otu00189
                       Otu00190
                                     Otu00191
                                                 Ot:1100192
                                                              Ot:1100193
## CSI001
                 0 7.035977e-05 0.000000e+00 0.00000e+00 0.000000e+00
## CSI012
                 0 8.624853e-05 0.000000e+00 0.00000e+00 1.379977e-04
## CSI022
                 0 2.151556e-05 0.000000e+00 0.00000e+00 2.151556e-05
## CSI044
                 0 2.089864e-03 0.000000e+00 3.94314e-05 0.000000e+00
                 0 1.505992e-04 0.000000e+00 0.00000e+00 1.011166e-02
## CSI055
## CSI065
                 0 1.588442e-03 0.000000e+00 0.00000e+00 4.160206e-04
##
  CSI076
                 0 2.312540e-04 0.000000e+00 0.00000e+00 2.168006e-03
##
          Otu00194
                       Otu00195
                                     Otu00196
                                                  Otu00197 Otu00198 Otu00199
## CSI001
                 0 5.159717e-04 0.0001172663 0.000000e+00
                                                                   0
                                                                            0
## CSI012
                                                                   0
                 0 8.607604e-03 0.0018112192 0.000000e+00
                                                                            0
## CSI022
                 0 4.582813e-03 0.0003227333 0.000000e+00
                                                                   0
                                                                            0
                 0 0.000000e+00 0.0000985785 1.182942e-04
## CSI044
                                                                   0
                                                                            0
## CSI055
                 0 0.000000e+00 0.0002581700 2.603214e-03
                                                                   0
## CSI065
                 0 0.000000e+00 0.0001512802 5.370447e-03
                                                                   0
                                                                            0
                 0 7.226687e-04 0.0001156270 1.800890e-02
##
  CSI076
                                                                   0
          Otu00200 Otu00201
                                Otu00202 Otu00203 Otu00204
##
                                                                 Ot:1100205
## CSI001
                 0
                          0 0.000000e+00
                                                 0
                                                          0 5.159717e-03
## CSI012
                 0
                          0 0.000000e+00
                                                 0
                                                          0 1.204030e-02
## CSI022
                 0
                          0 0.000000e+00
                                                 0
                                                          0 6.239511e-03
                 0
                                                 0
                                                          0 0.00000e+00
## CSI044
                          0 0.00000e+00
## CSI055
                 0
                          0 0.00000e+00
                                                 0
                                                          0 5.378542e-04
## CSI065
                                                 0
                 0
                          0 0.00000e+00
                                                          0 3.782005e-05
##
  CSI076
                 0
                          0 0.00000e+00
                                                 0
                                                          0 2.890675e-05
##
              Otu00206
                           Otu00207
                                        Otu00208
                                                     Otu00209
                                                                   Otu00210
## CSI001 0.0001407195 5.136263e-03 0.001243023 9.146770e-04 0.0000000000
  CSI012 0.0002759953 9.849583e-03 0.001259229 1.379977e-04 0.0000000000
  CSI022 0.0003442489 2.581867e-04 0.003829769 1.161840e-03 0.0000000000
## CSI044 0.0000000000 0.000000e+00 0.000000000 1.971570e-05 0.000000000
## CSI055 0.0000645425 0.000000e+00 0.000000000 5.808825e-04 0.0001936275
## CSI065 0.0000000000 0.000000e+00 0.000000000 4.311486e-03 0.000000000
```

```
## CSI076 0.0000000000 2.890675e-05 0.000000000 2.312540e-04 0.0000000000
##
          Otu00211
                       Otu00212
                                    Ot:1100213
                                                  Ot:1100214
                                                               Ot:1100215
                 0 3.072377e-03 0.0022280595 0.000000e+00 1.641728e-04
## CSI001
## CSI012
                 0 1.880218e-03 0.0093320914 3.449941e-05 1.034982e-04
## CSI022
                 0 2.732476e-03 0.0040018934 0.000000e+00 2.560351e-03
                 0 0.000000e+00 0.0000197157 0.000000e+00 8.477751e-04
## CSI044
                 0 0.000000e+00 0.0000645425 0.000000e+00 8.605667e-05
## CSI055
## CSI065
                 0 0.000000e+00 0.0000000000 3.782005e-05 7.639651e-03
## CSI076
                 0 2.890675e-05 0.0000000000 2.601607e-04 5.781349e-04
##
              Otu00216
                           Otu00217
                                        Otu00218
                                                      Otu00219
                                                                   Otu00220
  CSI001 4.690652e-05 0.000000e+00 7.035977e-05 4.456119e-03 0.000000e+00
  CSI012 0.000000e+00 0.000000e+00 2.242462e-04 2.121714e-03 0.000000e+00
  CSI022 6.454667e-05 0.000000e+00 1.075778e-04 1.312449e-03 1.075778e-04
  CSI044 5.914710e-05 0.000000e+00 0.000000e+00 0.000000e+00 1.971570e-05
  CSI055 2.796842e-03 2.151417e-05 0.000000e+00 0.000000e+00 3.399238e-03
  CSI065 7.564010e-03 0.000000e+00 0.000000e+00 0.000000e+00 1.777542e-03
  CSI076 6.937619e-04 0.000000e+00 0.000000e+00 0.000000e+00 2.688327e-03
##
              Otu00221
                           Otu00222
                                        Otu00223
                                                     Otu00224 Otu00225
  CSI001 0.0003048923 0.000000e+00 0.000000e+00 0.00000e+00
                                                                     0
  CSI012 0.0003967433 0.000000e+00 8.624853e-05 0.00000e+00
                                                                     0
  CSI022 0.0004303111 4.303111e-05 1.290933e-04 0.00000e+00
                                                                     0
  CSI044 0.0059935727 0.000000e+00 0.000000e+00 1.97157e-05
                                                                     0
  CSI055 0.0004948258 0.000000e+00 0.000000e+00 0.00000e+00
                                                                     0
  CSI065 0.0103626943 0.000000e+00 0.000000e+00 0.00000e+00
                                                                     0
  CSI076 0.0003179742 0.000000e+00 0.000000e+00 0.00000e+00
                                                                     0
              Otu00226
                           Otu00227
                                        Otu00228 Otu00229
                                                               Otu00230
## CSI001 0.0026033116 0.000000e+00 7.035977e-05
                                                         0 0.0003283456
  CSI012 0.0024494584 1.535224e-03 5.157662e-03
                                                         0 0.000000000
  CSI022 0.0016351822 0.000000e+00 7.143165e-03
                                                         0 0.000000000
  CSI044 0.0001577256 0.000000e+00 0.000000e+00
                                                         0 0.0000394314
  CSI055 0.0001075708 0.000000e+00 4.302833e-05
                                                         0 0.000000000
  CSI065 0.0000000000 4.160206e-04 0.000000e+00
                                                         0 0.0064294089
   CSI076 0.0001445337 0.000000e+00 0.000000e+00
                                                         0 0.000000000
##
              Otu00231
                           Otu00232
                                        Otu00233
                                                      Otu00234
                                                                   Otu00235
  CSI001 0.0000000000 9.381303e-05 0.000000e+00 2.345326e-05 7.035977e-05
  CSI012 0.0000000000 3.449941e-05 1.724971e-05 3.449941e-05 5.174912e-05
  CSI022 0.0007315289 2.043978e-03 0.000000e+00 0.000000e+00 1.183356e-03
  CSI044 0.0000000000 4.574042e-02 0.000000e+00 0.000000e+00 1.380099e-04
  CSI055 0.0000000000 1.011166e-03 2.151417e-05 1.398421e-03 3.011983e-04
  CSI065 0.0000000000 9.190273e-03 0.000000e+00 7.564010e-05 9.190273e-03
   CSI076 0.0000000000 3.468810e-04 0.000000e+00 1.300804e-03 8.382957e-04
          Otu00236
                       Otu00237
                                    Otu00238 Otu00239 Otu00240
##
                                                                    0t_{11}00241
## CSI001
                 0 0.000000e+00 3.494535e-03
                                                     0
                                                              0 9.475116e-03
                                                     0
## CSI012
                 0 1.724971e-05 1.379977e-03
                                                              0 4.916166e-03
## CSI022
                 0 0.000000e+00 1.622273e-02
                                                     0
                                                              0 2.710960e-03
                 0 0.000000e+00 0.000000e+00
## CSI044
                                                     0
                                                              0 0.00000e+00
## CSI055
                 0 0.000000e+00 0.000000e+00
                                                     0
                                                              0 8.605667e-05
## CSI065
                 0 0.000000e+00 3.782005e-05
                                                     0
                                                              0 0.00000e+00
##
  CSI076
                 0 0.000000e+00 0.000000e+00
                                                     0
                                                              0 2.601607e-04
              Otu00242
                           Otu00243
                                        Otu00244
                                                      Otu00245
                                                                   Otu00246
## CSI001 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 2.345326e-05
## CSI012 6.899883e-05 0.0000000000 1.724971e-05 0.000000e+00 0.000000e+00
## CSI022 1.140324e-03 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044 1.971570e-05 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
```

```
## CSI055 1.204793e-03 0.0003227125 0.000000e+00 2.151417e-05 0.000000e+00
  CSI065 2.344843e-03 0.0001891003 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 4.971960e-03 0.0007515754 0.000000e+00 0.000000e+00 1.185177e-03
##
          Otu00247 Otu00248
                               Otu00249
                                           Otu00250
                                                        Ot:1100251
## CST001
                0
                          0 5.159717e-03 0.011069938 0.000000e+00
## CSI012
                 0
                          0 1.155730e-03 0.007227627 0.000000e+00
                         0 6.820431e-03 0.006562245 0.000000e+00
## CSI022
                 0
                         0 3.943140e-05 0.000000000 0.000000e+00
## CSI044
                 0
## CSI055
                 Ω
                         0 2.151417e-05 0.000000000 2.151417e-05
                 0
                          0 0.000000e+00 0.000000000 0.000000e+00
## CSI065
  CSI076
                 0
                          0 5.492282e-04 0.000000000 0.000000e+00
              Otu00252
                          Otu00253 Otu00254
##
                                                 Otu00255
                                                             Otu00256
  CSI001 2.345326e-05 3.987054e-04
                                          0 2.345326e-05 0.000000e+00
  CSI012 2.050990e-02 1.535224e-03
                                          0 0.000000e+00 0.000000e+00
## CSI022 1.506089e-03 6.454667e-05
                                          0 0.000000e+00 0.000000e+00
  CSI044 1.971570e-05 1.971570e-05
                                          0 1.971570e-05 0.000000e+00
  CSI055 0.000000e+00 1.957789e-03
                                          0 0.000000e+00 2.151417e-05
  CSI065 1.134602e-04 1.512802e-04
                                          0 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 1.477135e-02
                                          0 0.000000e+00 0.000000e+00
              0tu00257
                          Otu00258
                                       Otu00259
                                                    Otu00260
  CSI001 7.035977e-05 0.000000e+00 4.690652e-05 2.345326e-05 0.000000e+00
## CSI012 3.449941e-05 0.000000e+00 0.000000e+00 2.587456e-04 0.000000e+00
## CSI022 2.151556e-05 0.000000e+00 0.000000e+00 4.303111e-05 0.000000e+00
  CSI044 9.069222e-04 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 2.753813e-03 4.302833e-05 1.592048e-03 6.454250e-05 0.000000e+00
  CSI065 1.323702e-03 0.000000e+00 0.000000e+00 0.000000e+00 2.269203e-04
  CSI076 1.185177e-03 2.890675e-04 8.672024e-05 0.000000e+00 8.672024e-05
                          Otu00263 Otu00264
              Otu00262
                                                 Otu00265
                                                              Otu00266
  CSI001 0.000000e+00 2.603312e-03
                                          0 2.368779e-03 0.0000000000
## CSI012 3.449941e-05 3.708687e-03
                                          0 4.691920e-03 0.0000000000
## CSI022 0.000000e+00 2.581867e-04
                                          0 6.024356e-04 0.0000000000
  CSI044 1.971570e-05 0.000000e+00
                                          0 1.182942e-04 0.0000197157
  CSI055 0.000000e+00 2.151417e-05
                                          0 8.605667e-05 0.0009251092
  CSI065 0.000000e+00 0.000000e+00
                                          0 2.004463e-03 0.0009833214
  CSI076 0.000000e+00 0.000000e+00
                                          0 8.325143e-03 0.0004336012
##
              Otu00267
                          Otu00268
                                                    Otu00270 Otu00271
##
                                       Ot:1100269
## CSI001 1.594822e-03 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
## CSI012 7.589871e-04 0.000000e+00 0.000000e+00 1.724971e-05
                                                                     0
  CSI022 5.120702e-03 0.000000e+00 4.303111e-05 0.000000e+00
                                                                     0
  CSI044 0.000000e+00 9.857850e-05 0.000000e+00 0.000000e+00
                                                                     0
  CSI055 1.505992e-04 8.605667e-05 2.151417e-05 2.151417e-05
                                                                     0
  CSI065 1.891003e-04 7.564010e-05 0.000000e+00 0.000000e+00
                                                                     0
  CSI076 8.672024e-05 5.781349e-05 0.000000e+00 0.000000e+00
                                                                     0
##
              Otu00272
                          Otu00273
                                       Otu00274
                                                    Otu00275
                                                                  Otu00276
  CSI001 0.0006566912 7.927201e-03 0.000000e+00 9.146770e-04 0.0017589943
  CSI012 0.0005692403 2.226937e-02 0.000000e+00 1.724971e-05 0.0047781688
  CSI022 0.0003012178 3.657644e-04 2.151556e-05 9.682000e-04 0.0014200267
  CSI055 0.0014844775 0.000000e+00 0.000000e+00 3.011983e-04 0.0003011983
  CSI065 0.0000000000 0.000000e+00 0.000000e+00 3.782005e-05 0.0001512802
  CSI076 0.0002890675 5.781349e-05 0.000000e+00 2.890675e-04 0.0002312540
##
              Otu00277 Otu00278
                                   Otu00279 Otu00280 Otu00281 Otu00282
## CSI001 0.000000e+00
                             0 0.00000e+00
                                                   0
                                                            0
                                                                     0
## CSI012 1.724971e-05
                             0 0.00000e+00
                                                   0
                                                            0
                                                                     0
```

```
## CSI022 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0
                                                                      0
  CSI044 0.000000e+00
                                                    0
                                                                      0
                              0 1.97157e-05
                                                             0
  CSI055 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0
                                                                      0
  CSI065 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0
                                                                      0
##
   CSI076 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0
                                                                      0
              Otu00283
                                        0tu00285
                                                                   Otu00287
##
                           Otu00284
                                                      Otu00286
  CSI001 1.641728e-04 1.993527e-03 0.000000e+00 0.0008912238 4.854824e-03
  CSI012 3.449941e-05 3.622438e-04 0.000000e+00 0.0008107362 3.605189e-03
   CSI022 0.000000e+00 3.722191e-03 0.000000e+00 0.0002151556 1.742760e-03
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.0005323239 0.000000e+00
   CSI055 2.282653e-02 0.000000e+00 0.000000e+00 0.0004087692 6.239108e-04
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.0006051208 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00 0.0002023472 8.672024e-05
##
          Otu00288
                       Otu00289
                                    Otu00290
                                                  Otu00291
                                                               Otu00292
## CSI001
                 0 0.000000e+00 0.0001876261 0.000000e+00 0.000000e+00
##
  CSI012
                 0 0.000000e+00 0.0002587456 0.000000e+00 5.174912e-05
                 0 0.000000e+00 0.0001075778 2.151556e-05 0.000000e+00
##
  CSI022
  CSI044
                 0 0.000000e+00 0.0000197157 0.000000e+00 0.000000e+00
  CSI055
                 0 2.151417e-05 0.0000000000 0.000000e+00 0.000000e+00
##
  CSI065
                 0.000000e+00 0.0071858099 0.000000e+00 0.000000e+00
##
  CST076
                 0 0.000000e+00 0.000000000 0.000000e+00 0.000000e+00
             Otu00293 Otu00294
                                   Otu00295
                                                 Otu00296 Otu00297 Otu00298
##
                             0 0.000000000 0.000000e+00
## CSI001 0.00000000
                                                                 0
                                                                           0
                             0 0.000000000 0.000000e+00
                                                                 0
                                                                           0
   CSI012 0.000000000
                                                                           0
  CSI022 0.000000000
                             0 0.0000000000 2.151556e-05
                                                                 0
  CSI044 0.000000000
                             0 0.000000000 0.000000e+00
                                                                 0
                                                                           0
                             0 0.0001290850 0.000000e+00
                                                                 0
                                                                           0
  CSI055 0.000000000
                                                                 0
                                                                           0
   CSI065 0.000000000
                             0 0.0002269203 1.512802e-03
   CSI076 0.001532058
                             0 0.000000000 0.000000e+00
                                                                 0
                                                                           0
##
##
              Otu00299
                           Otu00300
                                        Otu00301 Otu00302
                                                               Otu00303
   CSI001 0.000000e+00 0.0060040340 0.000000e+00
                                                         0 0.000000000
   CSI012 1.724971e-05 0.0003449941 0.000000e+00
                                                         0 0.000000000
   CSI022 2.151556e-05 0.0003442489 0.000000e+00
                                                         0 0.0001290933
  CSI044 0.000000e+00 0.0000000000 0.000000e+00
                                                         0 0.000000000
   CSI055 0.000000e+00 0.0000000000 0.000000e+00
                                                         0 0.000000000
  CSI065 1.134602e-04 0.0000000000 0.000000e+00
                                                         0 0.0000756401
   CSI076 3.121929e-03 0.0000000000 2.890675e-05
                                                         0 0.000000000
##
              Otu00304 Otu00305
                                    Otu00306
                                                  Otu00307
                                                               Ot:1100308
  CSI001 0.000000e+00
                              0 1.055397e-03 0.0001641728 6.332380e-04
  CSI012 0.000000e+00
                              0 5.347409e-04 0.0001379977 1.379977e-04
  CSI022 0.000000e+00
                              0 2.280649e-03 0.0010757778 2.151556e-05
  CSI044 0.000000e+00
                              0 0.000000e+00 0.0000394314 0.000000e+00
  CSI055 0.000000e+00
                              0 0.000000e+00 0.0002151417 0.000000e+00
  CSI065 0.000000e+00
                              0 0.000000e+00 0.0001134602 0.000000e+00
  CSI076 2.890675e-05
                              0 0.000000e+00 0.0034977164 0.000000e+00
                                                      Otu00312
##
                           Otu00310
                                         Otu00311
              Otu00309
                                                                   Otu00313
  CSI001 0.000000e+00 0.0032600028 9.381303e-05 0.000000e+00 1.261785e-02
   CSI012 0.000000e+00 0.0012074795 0.000000e+00 1.034982e-04 3.674188e-03
  CSI022 0.000000e+00 0.0014845733 8.606222e-05 0.000000e+00 6.669822e-04
   CSI044 0.000000e+00 0.0000788628 5.914710e-05 5.745155e-02 0.000000e+00
   CSI055 2.151417e-05 0.0001721133 0.000000e+00 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.0003782005 7.564010e-05 1.058961e-03 3.782005e-05
  CSI076 0.000000e+00 0.0001734405 2.890675e-05 0.000000e+00 2.601607e-04
##
          Otu00314
                       Otu00315
                                    Otu00316 Otu00317
                                                           Otu00318
```

```
## CSI001
                0 7.739575e-04 1.172663e-04
                                                  0 2.579858e-03
## CST012
                0 5.002415e-04 1.724971e-05
                                                  0 5.864900e-04
## CSI022
                0 4.303111e-05 4.303111e-05
                                                  0 3.442489e-04
  CSI044
                0 1.813844e-03 5.323239e-04
                                                  0 0.00000e+00
##
##
  CST055
                0 8.820809e-04 2.000818e-03
                                                  0 0.00000e+00
                0 1.096782e-03 1.248062e-03
                                                  0 0.000000e+00
##
  CSI065
  CSI076
                0 2.890675e-04 5.405562e-03
                                                  0 2.890675e-05
             Otu00319
##
                          Otu00320 Otu00321
                                                Ot:1100322
                                                            Ot:1100323
  CSI001 0.000000e+00 0.000000e+00
                                          0 0.0044795722 0.000000e+00
  CSI012 3.449941e-05 1.724971e-05
                                          0 0.0011384806 0.000000e+00
  CSI022 0.000000e+00 0.000000e+00
                                          0 0.0003872800 4.303111e-05
  CSI044 0.000000e+00 0.000000e+00
                                          0 0.000000000 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00
                                          0 0.0002151417 2.151417e-05
  CSI065 0.000000e+00 0.000000e+00
                                          0 0.000000000 0.000000e+00
  CSI076 0.000000e+00 0.000000e+00
                                          0 0.0001445337 0.000000e+00
##
             Otu00324
                          Otu00325
                                       Otu00326
                                                    Otu00327
                                                                Otu00328
  CSI001 4.690652e-05 0.0006801445 7.974108e-04 0.000000e+00 0.000000e+00
##
  CSI012 3.449941e-05 0.0004484924 8.797350e-04 0.000000e+00 1.724971e-05
  CSI022 8.821378e-04 0.0000000000 2.151556e-05 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.0000000000 1.971570e-05 0.000000e+00 1.971570e-05
  CSI055 0.000000e+00 0.0000000000 3.227125e-04 2.151417e-05 4.302833e-05
  CSI065 0.000000e+00 0.0000000000 2.496123e-03 0.000000e+00 7.564010e-05
  CSI076 0.000000e+00 0.0000000000 6.937619e-04 0.000000e+00 3.179742e-04
##
##
             Otu00329
                          Otu00330
                                       Otu00331
                                                    Otu00332
## CSI001 8.208640e-04 6.332380e-04 0.0016886346 0.0050659037 1.730850e-02
  CSI012 3.605189e-03 4.829918e-04 0.0004312427 0.0032429449 7.331125e-03
  CSI022 7.422867e-03 1.721244e-04 0.0038082534 0.0004733422 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00 0.0000000000 0.0000645425 2.151417e-05
  ##
  CSI076 0.000000e+00 5.781349e-05 0.0000000000 0.0000000000 2.890675e-04
##
         Otu00334
                      Otu00335
                                   Otu00336 Otu00337
                                                        0 \pm 1100338
## CSI001
                0 2.345326e-05 0.000000e+00
                                                  0 0.00000e+00
## CSI012
                0 0.000000e+00 0.000000e+00
                                                  0 0.00000e+00
## CSI022
                0 0.000000e+00 0.000000e+00
                                                  0 0.00000e+00
                0 0.000000e+00 5.469135e-02
## CST044
                                                  0 0.00000e+00
## CSI055
                0 0.000000e+00 0.000000e+00
                                                  0 2.151417e-05
                0 1.573314e-02 3.782005e-05
## CSI065
                                                  0 0.00000e+00
                0 0.000000e+00 0.000000e+00
                                                  0 0.000000e+00
##
  CST076
##
             Otu00339 Otu00340
                                   Otu00341
                                                0tu00342
                                                            Ot:1100343
  CSI001 0.0000000000
                             0 0.000000000 5.394249e-04 5.628782e-04
## CSI012 0.0000000000
                             0 0.000000000 3.104947e-04 1.036707e-02
  CSI022 0.0000000000
                             0 0.000000000 7.745600e-04 7.336805e-03
  CSI044 0.0000394314
                             0 0.000000000 0.000000e+00 0.000000e+00
  CSI055 0.0000000000
                             0 0.000000000 4.302833e-05 0.000000e+00
  CSI065 0.0000000000
                             0 0.0027230438 0.000000e+00 0.000000e+00
##
  CSI076 0.0000000000
                             0 0.000000000 0.000000e+00 0.000000e+00
##
         Otu00344
                      Otu00345
                                   Otu00346
                                                Otu00347 Otu00348
## CSI001
                0 0.000000e+00 2.345326e-05 2.345326e-05
                                                               0
## CSI012
                0 3.449941e-05 3.449941e-05 0.000000e+00
                                                               0
                0 0.000000e+00 0.000000e+00 0.000000e+00
                                                               0
## CSI022
## CSI044
                0 0.000000e+00 2.290964e-02 1.971570e-05
                                                               0
## CSI055
                0 0.000000e+00 1.505992e-03 1.936275e-04
                                                               0
## CSI065
                0 0.000000e+00 1.891003e-04 0.000000e+00
                                                               0
```

```
## CSI076
                 0 4.914147e-04 2.312540e-04 0.000000e+00
##
              Otu00349 Otu00350
                                     Otu00351 Otu00352
                                                           Ot:1100353
                              0 0.0017120878
## CSI001 4.690652e-04
                                                     0 0.000000e+00
## CSI012 9.832333e-04
                              0 0.0021389636
                                                     0 1.724971e-05
## CSI022 4.518267e-04
                              0 0.0027109600
                                                     0 0.00000e+00
## CSI044 7.886280e-05
                              0 0.000000000
                                                     0 0.000000e+00
## CSI055 4.302833e-05
                              0 0.0001936275
                                                     0 0.00000e+00
## CSI065 1.512802e-04
                              0 0.0004538406
                                                     0 0.000000e+00
  CSI076 2.890675e-05
                              0 0.0010695496
                                                     0 0.000000e+00
##
              Otu00354 Otu00355
                                     Otu00356 Otu00357 Otu00358 Otu00359
## CSI001 0.000000e+00
                              0 0.00000e+00
                                                     0
                                                               0
                                                     0
                                                               0
                                                                        0
## CSI012 1.724971e-05
                              0 1.724971e-05
## CSI022 4.303111e-05
                              0 0.000000e+00
                                                     0
                                                              0
                                                                        0
                                                              0
## CSI044 0.000000e+00
                              0 0.00000e+00
                                                     0
                                                                        0
  CSI055 0.000000e+00
                                                              0
                                                                        0
                              0 0.00000e+00
                                                     0
## CSI065 3.782005e-05
                              0 0.00000e+00
                                                     0
                                                              0
                                                                        0
                              0 0.000000e+00
                                                     0
                                                               0
  CSI076 8.672024e-05
                                                                        0
##
              Otu00360 Otu00361 Otu00362
                                              Otu00363 Otu00364
                                                                     Otu00365
## CSI001 0.000000e+00
                              0
                                        0 1.970074e-03
                                                              0 2.251513e-03
## CSI012 0.000000e+00
                              0
                                        0 9.314842e-04
                                                              0 4.191679e-03
## CSI022 0.000000e+00
                              0
                                        0 4.303111e-05
                                                              0 6.368605e-03
## CSI044 3.943140e-05
                              0
                                        0 1.971570e-05
                                                              0 0.000000e+00
## CSI055 0.000000e+00
                              0
                                        0 8.605667e-05
                                                              0 2.151417e-05
                                        0 3.782005e-05
## CSI065 3.782005e-05
                                                              0 0.00000e+00
## CSI076 0.000000e+00
                              0
                                        0 8.672024e-05
                                                              0 0.000000e+00
              Otu00366 Otu00367 Otu00368
                                              Otu00369
                                                           Otu00370
## CSI001 0.000000e+00
                                        0 0.000000000 0.000000000
                              0
  CSI012 1.724971e-05
                              0
                                        0 0.000000000 0.000000000
## CSI022 0.000000e+00
                              0
                                        0 0.000000000 0.0031412711
  CSI044 0.000000e+00
                              0
                                        0 0.000000000 0.0001774413
## CSI055 0.000000e+00
                              0
                                        0 0.0041737484 0.0002151417
  CSI065 0.000000e+00
                              0
                                        0 0.0006429409 0.0002647404
   CSI076 0.000000e+00
                              0
                                        0 0.0018500318 0.0001734405
              Otu00371 Otu00372 Otu00373
##
                                              Otu00374
                                                           0 \pm 1100375
## CSI001 0.000000e+00
                              0
                                        0 0.000000e+00 1.407195e-04
                              0
                                        0 0.000000e+00 5.174912e-05
## CSI012 1.724971e-05
## CSI022 0.000000e+00
                              0
                                        0 0.000000e+00 4.303111e-05
## CSI044 0.000000e+00
                              0
                                        0 0.000000e+00 0.000000e+00
## CSI055 0.000000e+00
                                        0 0.000000e+00 9.466234e-04
                              0
  CSI065 0.000000e+00
                                        0 7.564010e-05 2.647404e-04
                              0
  CSI076 0.000000e+00
                                        0 0.000000e+00 5.058681e-03
              Otu00376 Otu00377 Otu00378 Otu00379
##
                                                       Ot1100380 Ot1100381
  CSI001 7.035977e-05
                              0
                                        0
                                                 0 0.000000e+00
                                                                        0
  CSI012 1.017733e-03
                              0
                                        0
                                                                        0
                                                 0 0.00000e+00
  CSI022 1.506089e-04
                              0
                                        0
                                                 0 0.00000e+00
                                                                        0
                                        0
## CSI044 0.000000e+00
                              0
                                                                        0
                                                 0 0.00000e+00
  CSI055 1.333878e-03
                              0
                                        0
                                                 0 0.00000e+00
                                                                        0
                              0
                                        0
                                                                        0
  CSI065 2.685224e-03
                                                 0 0.00000e+00
  CSI076 2.890675e-03
                              0
                                        0
                                                 0 0.000000e+00
                                                                        0
              Otu00382
                           Otu00383 Otu00384
                                                  Otu00385
                                                                Otu00386
## CSI001 0.0003048923 9.381303e-05
                                            0 0.000000000 0.000000e+00
## CSI012 0.0004139930 0.000000e+00
                                            0 0.000000000 0.000000e+00
## CSI022 0.0001290933 5.163733e-04
                                            0 0.0000000000 4.303111e-05
## CSI044 0.000000000 0.000000e+00
                                            0 0.0000394314 0.000000e+00
```

```
## CSI055 0.0030550117 0.000000e+00
                                         0 0.0023020159 3.463781e-03
  CSI065 0.0003403805 0.000000e+00
                                         0 0.0000756401 1.134602e-04
                                         0 0.0005203214 3.350292e-02
  CSI076 0.0051743077 0.000000e+00
                                      Otu00389
##
             Otu00387
                         Otu00388
                                                  Otu00390 Otu00391
  CSI001 3.353816e-03 1.196116e-03 2.392232e-03 0.000000e+00
  CSI012 2.121714e-03 2.242462e-04 2.828952e-03 0.000000e+00
                                                                  0
  CSI022 3.334911e-03 5.594044e-04 3.012178e-04 0.000000e+00
## CSI044 0.000000e+00 0.000000e+00 0.000000e+00 3.943140e-05
                                                                  0
  CSI055 0.000000e+00 2.151417e-05 8.605667e-05 2.151417e-05
                                                                  0
  CSI065 1.512802e-04 9.833214e-04 1.134602e-04 3.895465e-03
  CSI076 2.890675e-05 2.890675e-05 4.046945e-04 8.382957e-04
         Otu00392
                      Otu00393
                                  Otu00394
                                               Otu00395
                                                           Otu00396
##
##
  CSI001
                0 4.690652e-05 0.0000000000 0.000000e+00 0.0002579858
## CSI012
                0 0.000000e+00 0.0000000000 2.587456e-04 0.0018802180
## CSI022
                0 2.280649e-03 0.0000000000 8.606222e-05 0.0001075778
## CSI044
                ## CSI055
  CSI065
                0 2.533943e-03 0.0007942211 2.269203e-04 0.0000000000
                0 5.492282e-04 0.0000000000 0.000000e+00 0.0000000000
##
  CST076
             Otu00397 Otu00398
                                  Otu00399 Otu00400
                                                       Otu00401
  CSI001 0.000000e+00
                            0 0.000000e+00
                                                 0 0.00000e+00
## CSI012 0.000000e+00
                                                 0 0.00000e+00
                            0 6.899883e-04
## CSI022 0.000000e+00
                            0 0.00000e+00
                                                 0.000000e+00
## CSI044 1.971570e-05
                            0 0.00000e+00
                                                 0 0.00000e+00
## CSI055 2.431101e-03
                            0 2.796842e-04
                                                 0 2.581700e-04
  CSI065 0.000000e+00
                            0 0.00000e+00
                                                 0 0.00000e+00
  CSI076 1.647685e-03
                            0 2.890675e-05
                                                 0 5.781349e-05
             Otu00402
                         Otu00403
                                      Otu00404
                                                  Otu00405
                                                              Otu00406
  CSI001 0.000000e+00 0.000000e+00 3.330363e-03 0.0000000000 0.000000000
  CSI012 0.000000e+00 2.242462e-04 5.243911e-03 0.000000000 0.000000000
  CSIO22 2.151556e-05 4.303111e-04 9.036533e-04 0.0002151556 0.000000000
  CSI055 0.000000e+00 1.290850e-04 0.000000e+00 0.000000000 0.000000000
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.0000756401 0.004538406
  CSI076 0.000000e+00 8.672024e-05 0.000000e+00 0.000000000 0.000000000
         Otu00407
                    Otu00408
                                 Otu00409
                                             Otu00410
##
## CSI001
                0.000000000 1.172663e-04 0.000000e+00 0.000000e+00
## CSI012
                0 0.000000000 3.277444e-04 1.724971e-05 0.000000e+00
## CSI022
                0 0.000000000 1.075778e-04 0.000000e+00 6.454667e-05
                0 0.000000000 3.943140e-05 4.751484e-03 0.000000e+00
## CST044
                0 0.001828704 4.302833e-05 3.657408e-04 0.000000e+00
  CSI055
                0 0.000000000 0.000000e+00 7.790931e-03 0.000000e+00
  CST065
                0 0.000000000 2.890675e-05 0.000000e+00 5.781349e-05
  CST076
##
             Otu00412 Otu00413
                                  Otu00414
                                               Otu00415
                                                           Otu00416
  CSI001 9.381303e-05
                            0 3.752521e-04 2.345326e-05 0.000000e+00
## CSI012 0.000000e+00
                            0 1.379977e-04 0.000000e+00 0.000000e+00
  CSI022 0.000000e+00
                            0 4.303111e-05 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00
                            0 2.563041e-04 0.000000e+00 2.740482e-03
  CSI055 7.099675e-04
                            0 1.075708e-04 0.000000e+00 2.151417e-04
## CSI065 0.000000e+00
                            0 2.647404e-03 8.320411e-04 1.323702e-03
  CSI076 1.156270e-04
                            0 1.156270e-04 0.000000e+00 1.127363e-03
##
##
         Otu00417
                      Otu00418
                                  Otu00419 Otu00420 Otu00421 Otu00422
                0 0.000000e+00 2.345326e-05
## CSI001
                                                 0
                                                          0
                                                                   0
## CSI012
                0 0.000000e+00 0.000000e+00
                                                 0
                                                          0
                                                                   0
```

```
## CSI022
                0 2.151556e-05 1.075778e-04
                                                  0
                                                          0
                                                                   0
                0 0.000000e+00 0.000000e+00
                                                  0
                                                          0
  CSI044
                                                                   0
  CSI055
                0 2.151417e-05 0.000000e+00
                                                  0
                                                          0
                                                                   0
                                                          0
  CSI065
                0 0.000000e+00 0.000000e+00
                                                  0
                                                                   0
##
##
  CST076
                0 0.000000e+00 0.000000e+00
                                                  0
                                                          0
                                                                   0
                         Otu00424
                                      Otu00425 Otu00426
##
             Otu00423
                                                           Otu00427
  CSI001 0.000000e+00 4.761011e-03 0.0014306487
                                                      0 0.000000000
  CSI012 0.000000e+00 2.000966e-03 0.0002932450
                                                      0.0000000000
  CSI022 0.000000e+00 4.303111e-05 0.0000000000
                                                      0 0.0005378889
  CSI044 0.000000e+00 0.000000e+00 0.0000000000
                                                      0 0.0000000000
  CSI055 0.000000e+00 0.000000e+00 0.0019793034
                                                      0 0.000000000
  CSI065 3.782005e-05 0.000000e+00 0.0000756401
                                                      0 0.0006807609
   CSI076 0.000000e+00 8.672024e-05 0.0026594207
                                                      0.0000000000
             Otu00428
##
                         Otu00429
                                     Otu00430
                                                  Otu00431
                                                              Otu00432
  CSI044 0.000000e+00 1.97157e-05 0.000000e+00 0.000000e+00 0.0000000000
  CSI055 6.454250e-05 0.00000e+00 0.000000e+00 0.000000e+00 0.0438028442
  CSI065 0.000000e+00 0.00000e+00 0.000000e+00 3.782005e-05 0.0000000000
  CSI076 1.445337e-04 0.00000e+00 0.000000e+00 0.000000e+00 0.0001734405
##
         Otu00433
                                  Otu00435
##
                      Ot:1100434
                                              Ot1100436 Ot1100437
## CSI001
                0 0.000000e+00 0.000000e+00 0.00000e+00
                                                             0
                0 0.000000e+00 1.724971e-05 0.00000e+00
                                                             0
  CSI012
                                                             0
##
  CSI022
                0 0.000000e+00 0.000000e+00 0.00000e+00
  CSI044
                0 0.000000e+00 0.000000e+00 0.00000e+00
                                                             0
  CSI055
                0 0.000000e+00 0.000000e+00 0.00000e+00
                                                             0
##
                                                             0
##
  CSI065
                0 0.000000e+00 0.000000e+00 0.00000e+00
                0 0.000000e+00 0.000000e+00 0.00000e+00
                                                             0
##
  CSI076
##
             Otu00438
                         Otu00439 Otu00440
                                               Otu00441
                                                           Otu00442
##
  CSI001 2.345326e-05 0.000000e+00
                                         0 1.078850e-03 0.000000e+00
  CSI012 0.000000e+00 0.000000e+00
                                         0 5.519906e-04 1.724971e-05
  CSI022 5.378889e-04 0.000000e+00
                                         0 2.151556e-05 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00
                                         0 0.000000e+00 3.943140e-05
  CSI055 0.000000e+00 0.000000e+00
                                         0 7.960242e-04 2.151417e-04
  CSI065 0.000000e+00 0.000000e+00
                                         0 5.673008e-04 0.000000e+00
##
  CSI076 0.000000e+00 0.000000e+00
                                         0 6.359484e-04 1.425103e-02
##
             Otu00443
                                     Otu00445 Otu00446
                         Ot.1100444
                                                          0t.1100447
  CSI001 1.899714e-03 0.00000e+00 0.0000000000
                                                     0 4.690652e-05
  CSI012 2.604706e-03 0.00000e+00 0.0000000000
                                                    0.000000e+00
  CSI022 1.463058e-03 0.00000e+00 0.0000000000
                                                     0 2.345196e-03
  CSI044 0.000000e+00 1.97157e-05 0.0000000000
                                                     0 9.660693e-04
  CSI055 0.000000e+00 0.00000e+00 0.0000000000
                                                     0 0.00000e+00
  CSI065 0.000000e+00 0.00000e+00 0.0000000000
                                                     0 3.782005e-05
  CSI076 4.914147e-04 0.00000e+00 0.0000000000
                                                     0 0.00000e+00
##
             Otu00448
                         Otu00449
                                      Otu00450
                                                   Otu00451
                                                               Otu00452
  CSI001 1.641728e-04 2.345326e-05 9.381303e-05 0.0027674844 0.000000e+00
  CSI012 5.174912e-05 2.587456e-04 0.000000e+00 0.0024667081 8.624853e-05
  CSI022 0.000000e+00 1.979431e-03 1.721244e-04 0.0007315289 4.948578e-04
  CSI044 5.717553e-04 0.000000e+00 0.000000e+00 0.0023461683 0.000000e+00
  CSI055 6.669392e-04 0.000000e+00 0.000000e+00 0.0004517975 0.000000e+00
  CSI065 1.588442e-03 0.000000e+00 1.134602e-04 0.0004160206 0.000000e+00
  CSI076 5.781349e-05 0.000000e+00 0.000000e+00 0.0002601607 0.000000e+00
##
             Otu00453
                         Otu00454 Otu00455 Otu00456
                                                       Otu00457
```

```
## CSI001 1.665181e-03 0.000000e+00
                                          0
                                                   0 0.00000e+00
  CSI012 3.277444e-04 1.034982e-04
                                          0
                                                   0 0.00000e+00
  CSI022 6.454667e-05 2.151556e-05
                                          0
                                                   0 0.00000e+00
  CSI044 3.943140e-05 0.000000e+00
                                          0
                                                   0 0.00000e+00
  CSI055 3.657408e-04 2.151417e-05
                                          0
                                                   0.000000e+00
  CSI065 4.916607e-04 7.564010e-05
                                          0
                                                   0 0.00000e+00
  CSI076 3.035208e-03 0.000000e+00
                                          0
                                                   0 2.890675e-05
                                                    Otu00461 Otu00462
##
             Ot:1100458
                          Ot:1100459
                                       Otu00460
  CSI001 0.0021811530 0.000000e+00 0.000000e+00 0.0008677705
                                                                   0
  CSI012 0.0030359484 0.000000e+00 0.000000e+00 0.0005347409
                                                                   0
  CSI022 0.0009251689 0.000000e+00 0.000000e+00 0.0001290933
                                                                   0
  CSI044 0.000000000 0.000000e+00 0.000000e+00 0.0010055007
                                                                   0
  CSI055 0.0000000000 0.000000e+00 5.378542e-04 0.0002796842
                                                                   0
                                                                   0
  CSI065 0.0000000000 0.000000e+00 0.000000e+00 0.0003782005
  CSI076 0.0000000000 0.000000e+00 6.359484e-04 0.0002023472
                                                                   0
##
             Otu00463
                          Otu00464
                                       Otu00465
                                                    Otu00466
                                                                Otu00467
  CSI001 5.159717e-04 2.345326e-05 0.000000e+00 0.000000e+00 2.814391e-04
##
  CSI012 8.624853e-05 5.174912e-05 0.000000e+00 9.832333e-04 1.724971e-04
  CSI022 0.000000e+00 8.391067e-04 0.000000e+00 1.936400e-04 2.151556e-05
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 1.380099e-04
  CSI055 1.036983e-02 0.000000e+00 2.366558e-04 1.505992e-04 0.000000e+00
  CSI065 4.235846e-03 0.000000e+00 0.000000e+00 0.000000e+00 1.134602e-04
  CSI076 2.081286e-03 0.000000e+00 5.781349e-05 5.781349e-05 0.000000e+00
##
##
             Otu00468
                          Otu00469
                                       Otu00470
                                                    Ot:1100471
                                                                Ot:1100472
## CSI001 0.0004221586 0.000000e+00 2.345326e-05 0.000000e+00 0.000000000
  CSI012 0.0010349824 1.724971e-05 0.000000e+00 0.000000e+00 0.0000000000
  CSI022 0.0004733422 4.303111e-05 0.000000e+00 2.151556e-05 0.0000000000
  CSI055 0.0000000000 1.721133e-04 0.000000e+00 0.000000e+00 0.0000000000
  ##
  CSI076 0.0000000000 2.890675e-05 0.000000e+00 0.000000e+00 0.0001734405
##
             Otu00473 Otu00474 Otu00475
                                            Otu00476
                                                         Otu00477 Otu00478
  CSI001 0.000000e+00
                             0
                                      0 2.345326e-05 0.0014071955
                                                                        0
                             0
  CSI012 5.174912e-05
                                      0 0.000000e+00 0.0031394466
                                                                        0
  CSI022 0.000000e+00
                             0
                                      0 8.154396e-03 0.0015706356
                                                                        0
                             0
                                      0 0.000000e+00 0.0000000000
  CSI044 0.000000e+00
                                                                        0
  CSI055 2.151417e-04
                             0
                                      0 0.000000e+00 0.0000000000
                                                                        0
## CSI065 0.000000e+00
                             0
                                      0 0.000000e+00 0.0000000000
                                                                        Λ
  CSI076 4.046945e-04
                                      0 0.000000e+00 0.0006070417
##
         Otu00479 Otu00480
                               Otu00481
##
                                            Ot:1100482
                                                         Ot:1100483
                                                                   Ot.1100484
## CSI001
                0
                         0 9.381303e-05 4.221586e-04 2.345326e-05 0.00000000
## CSI012
                         0 5.692403e-04 3.277444e-04 0.000000e+00 0.00000000
                0
## CSI022
                0
                         0 4.087956e-04 1.721244e-04 6.454667e-05 0.00000000
                0
                         0 1.971570e-05 1.971570e-05 0.000000e+00 0.00747225
## CSI044
## CSI055
                0
                         0 0.000000e+00 0.000000e+00 2.151417e-05 0.00000000
## CSI065
                         0 0.000000e+00 0.000000e+00 0.000000e+00 0.00000000
                0
## CSI076
                0
                         0 2.890675e-05 2.890675e-05 2.601607e-04 0.00000000
##
             Otu00485 Otu00486
                                   Otu00487 Otu00488
                                                         Otu00489
## CSI001 0.000000e+00
                             0 1.876261e-04
                                                   0 3.987054e-04
## CSI012 0.000000e+00
                             0 3.794935e-04
                                                   0 5.174912e-05
## CSI022 0.000000e+00
                             0 4.733422e-04
                                                   0 8.606222e-05
## CSI044 0.000000e+00
                             0 0.00000e+00
                                                   0 0.00000e+00
## CSI055 2.151417e-05
                             0 8.605667e-05
                                                   0 8.218412e-03
## CSI065 0.000000e+00
                             0 4.538406e-04
                                                   0 0.00000e+00
```

```
## CSI076 0.000000e+00
                              0 6.070417e-04
                                                     0 5.087587e-03
                                        Otu00492
##
                           Ot:1100491
                                                      0 \pm 1100493
              Ot.1100490
                                                                    Ot:1100494
  CSI001 0.000000e+00 2.345326e-05 7.035977e-05 3.564895e-03 1.970074e-03
  CSI012 0.000000e+00 1.207479e-04 1.673222e-03 8.279859e-04 2.587456e-04
  CSI022 0.000000e+00 4.733422e-04 6.024356e-04 1.785791e-03 2.581867e-04
  CSI044 0.000000e+00 0.000000e+00 1.971570e-05 9.660693e-04 0.000000e+00
  CSI055 1.252125e-02 2.151417e-05 8.605667e-05 0.000000e+00 0.000000e+00
## CSI065 3.782005e-05 0.000000e+00 0.000000e+00 2.307023e-03 0.000000e+00
  CSI076 4.191478e-03 0.000000e+00 0.000000e+00 5.781349e-05 4.046945e-04
          Otu00495
##
                       Otu00496
                                    Otu00497
                                                  Otu00498
                                                               Otu00499
## CSI001
                 0 2.345326e-05 3.283456e-04 2.345326e-05 2.228059e-03
## CSI012
                 0 1.241979e-03 1.431726e-03 0.000000e+00 4.519423e-03
## CSI022
                 0 4.518267e-04 1.118809e-03 2.151556e-04 3.872800e-04
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044
## CSI055
                 0 2.151417e-05 8.605667e-05 0.000000e+00 6.454250e-05
## CSI065
                 0 0.000000e+00 7.564010e-05 2.662532e-02 0.000000e+00
                 0 0.000000e+00 8.672024e-05 0.000000e+00 1.069550e-03
##
  CSI076
##
              Otu00500 Otu00501
                                    Otu00502
                                                  Otu00503
                                                               Otu00504
                              0 0.0023922323 1.899714e-03 0.000000e+00
## CSI001 4.925184e-04
## CSI012 3.449941e-05
                              0 0.0004657421 4.312427e-04 1.724971e-05
                              0 0.0001936400 1.506089e-04 0.000000e+00
## CSI022 6.454667e-05
                              0 0.0000197157 0.000000e+00 0.000000e+00
## CSI044 1.971570e-05
## CSI055 1.075708e-04
                              0 0.0003872550 0.000000e+00 0.000000e+00
                              0 0.0006429409 0.000000e+00 0.000000e+00
  CSI065 1.134602e-04
                              0 0.0002023472 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00
              Otu00505
                           Otu00506 Otu00507
                                                  Otu00508
                                                               Otu00509
## CSI001 2.345326e-05 0.000000e+00
                                            0 0.000000e+00 2.345326e-05
  CSI012 0.000000e+00 0.000000e+00
                                            0 3.449941e-05 1.724971e-05
  CSI022 2.151556e-05 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 5.914710e-05
  CSI055 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 6.278129e-03
   CSI076 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
          Otu00510
                                    Otu00512 Otu00513 Otu00514 Otu00515
##
                       Otu00511
  CSI001
                 0 0.0011023031 7.035977e-04
                                                     0
                                                               0
                                                                        0
  CSI012
                 0 0.0003622438 6.554889e-04
                                                     0
                                                               0
                                                                        0
##
## CSI022
                 0 0.0000000000 1.290933e-04
                                                     0
                                                               0
                                                                        0
## CSI044
                 0 0.000000000 0.000000e+00
                                                     0
                                                               0
                                                                        0
                 0 0.0000000000 6.454250e-05
                                                     0
                                                               0
                                                                        0
  CST055
                                                               0
                 0 0.0000000000 7.564010e-05
                                                     Λ
                                                                        0
##
  CSI065
                 0 0.0000000000 2.890675e-05
                                                               0
   CSI076
              Otu00516
                           Otu00517
                                        Otu00518 Otu00519
##
                                                               0t_{11}00520
  CSI001 0.0000000000 2.345326e-05 0.000000e+00
                                                         0 0.00000e+00
  CSI012 0.000000000 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
  CSI022 0.000000000 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
  CSI044 0.0000197157 0.000000e+00 1.971570e-05
                                                         0 0.000000e+00
   CSI055 0.0007529958 2.151417e-05 6.454250e-05
                                                         0 2.151417e-05
   CSI065 0.0007185810 7.185810e-04 3.782005e-05
                                                         0 0.00000e+00
   CSI076 0.0000000000 2.659421e-03 4.914147e-04
                                                         0 0.000000e+00
              Otu00521 Otu00522
                                    Otu00523 Otu00524 Otu00525
                                                                     Otu00526
## CSI001 0.0007974108
                                                     0
                                                              0 0.000000e+00
                              0 1.641728e-04
## CSI012 0.0007072380
                              0 8.624853e-05
                                                     0
                                                              0 0.00000e+00
## CSI022 0.0003872800
                              0.0.000000e+00
                                                     0
                                                              0 0.000000e+00
## CSI044 0.0000985785
                              0 0.00000e+00
                                                     0
                                                              0 1.380099e-04
```

```
## CSI055 0.0010757084
                             0 0.00000e+00
                                                  0
                                                           0 2.581700e-04
  CSI065 0.0002647404
                             0 0.000000e+00
                                                  0
                                                           0 3.782005e-05
  CSI076 0.0003468810
                             0 8.672024e-05
                                                  0
                                                           0 0.00000e+00
##
             Otu00527 Otu00528 Otu00529
                                                        Otu00531 Otu00532
                                            Otu00530
  CSI001 4.315399e-03
                             0
                                      0 0.0000000000 7.270510e-04
                             0
## CSI012 3.794935e-03
                                      0 0.0001379977 1.552474e-03
                                                                        0
                             0
  CSI022 2.366711e-04
                                      0 0.0000000000 4.087956e-04
                                                                        0
                                      0 0.000000000 0.000000e+00
## CSI044 0.000000e+00
                             0
                                                                        0
  CSI055 0.000000e+00
                             0
                                      0 0.0000000000 1.075708e-04
                                                                        O
  CSI065 0.000000e+00
                             0
                                      0 0.0000000000 3.782005e-05
                                                                        0
  CSI076 8.672024e-05
                             0
                                      0 0.0002890675 2.890675e-04
                                                                        0
##
             Otu00533 Otu00534 Otu00535
                                            Otu00536
                                                        Otu00537 Otu00538
##
  CSI001 2.345326e-05
                             0
                                      0 1.172663e-04 1.407195e-04
                                                                        0
## CSI012 0.000000e+00
                             0
                                      0 8.624853e-05 3.967433e-04
                                                                        0
## CSI022 4.389173e-03
                             0
                                      0 0.000000e+00 1.075778e-04
                                                                        0
  CSI044 0.000000e+00
                             0
                                      0 0.000000e+00 1.182942e-04
                                                                        0
                             0
                                      0 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
                                                                        0
  CSI065 0.000000e+00
                             0
                                      0 0.000000e+00 3.782005e-05
                                      0 5.781349e-05 2.890675e-05
##
  CST076 0.000000e+00
                             0
                                                                        0
##
             Otu00539
                          Otu00540
                                      Otu00541
                                                   Otu00542
                                                                0tu00543
  CSI001 4.690652e-05 2.368779e-03 0.000000e+00 2.650218e-03 0.0007974108
  CSI012 0.000000e+00 3.087698e-03 0.000000e+00 5.347409e-04 0.0014317257
## CSI022 4.303111e-05 1.247902e-03 2.151556e-05 6.454667e-05 0.0024527734
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.0000197157
  CSI055 9.466234e-04 0.000000e+00 0.000000e+00 0.000000e+00 0.0001721133
  ##
             Otu00544 Otu00545
                                   Otu00546 Otu00547
                                                        Otu00548
  CSI001 0.000000e+00
##
                             0 0.000000000
                                                  0 2.345326e-05
  CSI012 1.724971e-05
                             0 0.0001034982
                                                  0 0.000000e+00
## CSI022 0.000000e+00
                             0 0.000000000
                                                  0 7.530445e-04
  CSI044 0.000000e+00
                             0 0.0261627334
                                                  0.0.000000e+00
  CSI055 4.087692e-04
                             0 0.000000000
                                                  0 0.00000e+00
  CSI065 1.474982e-03
                             0 0.0012858818
                                                  0 3.782005e-05
  CSI076 4.625079e-04
                             0 0.000000000
                                                  0 1.445337e-04
##
             Otu00549
                          Otu00550
                                                   Otu00552 Otu00553
##
                                      Otu00551
## CSI001 4.690652e-05 3.048923e-03 0.0014071955 4.690652e-05
## CSI012 6.727386e-04 1.379977e-03 0.0025874560 1.724971e-05
                                                                   0
  CSI022 8.606222e-05 5.594044e-04 0.0008391067 4.303111e-05
                                                                   0
  CSI044 0.000000e+00 0.000000e+00 0.0000000000 1.971570e-05
                                                                   0
  CSI055 9.035950e-04 6.454250e-05 0.0000000000 5.206428e-03
  CSI065 0.000000e+00 3.782005e-05 0.000000000 5.294807e-04
                                                                   0
  CSI076 6.070417e-04 5.781349e-05 0.0000000000 1.300804e-03
                                      Otu00556 Otu00557 Otu00558
##
             Otu00554
                          Otu00555
  CSI001 0.0011023031 4.690652e-05 0.000000e+00
                                                      0
                                                               0
  CSI012 0.0002932450 1.379977e-04 1.724971e-05
                                                      0
                                                               0
  CSI022 0.0001290933 2.151556e-05 0.000000e+00
                                                      0
                                                               0
                                                               0
  CSI044 0.0000197157 0.000000e+00 0.000000e+00
                                                      0
  CSI055 0.0003227125 7.099675e-04 0.000000e+00
                                                      0
                                                               0
  CSI065 0.0006807609 3.403805e-04 0.000000e+00
                                                      0
                                                               0
  CSI076 0.0007804822 2.312540e-04 0.000000e+00
                                                               0
##
                                                      0
##
             Otu00559
                          Otu00560 Otu00561
                                                0tu00562
                                                            Otu00563
## CSI001 1.360289e-03 2.345326e-05
                                          0 0.000000e+00 8.443173e-04
## CSI012 0.000000e+00 0.000000e+00
                                          0 0.000000e+00 2.759953e-04
```

```
## CSI022 6.454667e-05 7.702569e-03
                                            0 0.000000e+00 8.606222e-05
  CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 5.914710e-05
  CSI055 2.151417e-05 0.000000e+00
                                            0 0.000000e+00 8.605667e-04
  CSI065 7.564010e-05 0.000000e+00
                                            0 0.000000e+00 4.916607e-04
   CSI076 3.179742e-04 0.000000e+00
                                            0 0.000000e+00 2.890675e-04
              Otu00564
                            Otu00565
                                         Otu00566 Otu00567 Otu00568
##
  CSI001 3.048923e-04 2.345326e-05 3.048923e-04
                                                          0
                                                                   0
  CSI012 1.207479e-04 0.000000e+00 3.449941e-05
                                                          0
                                                                   0
   CSI022 4.303111e-05 0.000000e+00 2.151556e-05
                                                          Λ
                                                                   0
                                                          Λ
                                                                   0
   CSI044 0.000000e+00 9.857850e-05 0.000000e+00
   CSI055 0.000000e+00 3.872550e-04 1.721133e-04
                                                                   0
                                                                   0
   CSI065 0.000000e+00 6.807609e-04 3.782005e-05
                                                          0
   CSI076 6.648552e-04 5.492282e-04 3.179742e-04
                                                          0
                                                                   0
##
              Otu00569 Otu00570
                                     Otu00571 Otu00572 Otu00573 Otu00574
  CSI001 0.0001876261
                               0 2.345326e-05
                                                      0
                                                               0
                                                                         0
  CSI012 0.0005347409
                               0 0.00000e+00
                                                      0
                                                               0
                                                                         0
                                                               0
                                                                         0
  CSI022 0.0004518267
                               0 0.00000e+00
                                                      0
   CSI044 0.0000000000
                               0 5.914710e-05
                                                      0
                                                               0
                                                                         0
  CSI055 0.0001721133
                                                               0
                                                                         0
                               0 1.678105e-03
                                                      0
  CSI065 0.0000756401
                               0 7.564010e-05
                                                      0
                                                               0
                                                                         0
##
  CSI076 0.0001445337
                               0 2.283633e-03
                                                      Λ
                                                               0
                                                                         0
          Otu00575 Otu00576
                                              Otu00578 Otu00579
                                                                     Otu00580
##
                                 Ot:1100577
## CSI001
                 0
                           0 0.0003752521 0.0000000000
                                                               0 0.000000e+00
## CSI012
                 0
                           0 0.0007072380 0.0000000000
                                                               0 0.00000e+00
                 0
## CSI022
                           0 0.0008606222 0.0000000000
                                                               0 0.000000e+00
  CSI044
                 0
                           0 0.000000000 0.0000394314
                                                               0 0.00000e+00
## CSI055
                 0
                           0 0.0001721133 0.0020008175
                                                               0 0.000000e+00
  CSI065
                 0
                           0 0.000000000 0.0002269203
                                                               0 7.564010e-05
  CSI076
                 0
                           0 0.0001734405 0.0013297104
                                                               0 2.023472e-04
##
##
          Otu00581
                        Otu00582
                                     Otu00583
                                                  Otu00584
                                                                Otu00585
## CSI001
                 0.000000e+00 1.172663e-04 0.000000e+00 2.345326e-05
##
  CSI012
                 0 0.000000e+00 1.724971e-05 0.000000e+00 0.000000e+00
  CSI022
                 0 2.151556e-05 6.454667e-05 0.000000e+00 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
  CSI055
                 0 1.097223e-03 6.023967e-04 0.000000e+00 1.505992e-04
                 0 1.096782e-03 1.134602e-04 0.000000e+00 0.000000e+00
##
  CST065
##
  CSI076
                 0 2.196913e-03 4.336012e-04 0.000000e+00 0.000000e+00
##
          Otu00586
                       0 \pm 1100587
                                     Otu00588
                                                 Otu00589
## CSI001
                 0 0.000000e+00 0.0020638867 0.00000e+00 0.000000e+00
  CSI012
                 0 0.000000e+00 0.0007244877 0.00000e+00 0.000000e+00
##
                 0 0.000000e+00 0.0001506089 0.00000e+00 0.000000e+00
  CSI022
  CSI044
                 0 0.000000e+00 0.0000000000 1.97157e-05 0.000000e+00
##
  CSI055
                 0 8.175383e-04 0.0000645425 0.00000e+00 0.000000e+00
                 0 0.000000e+00 0.0000756401 0.00000e+00 0.000000e+00
  CSI065
##
  CSI076
                 0 2.890675e-05 0.0001445337 0.00000e+00 0.000000e+00
              Otu00591 Otu00592 Otu00593
                                                            Otu00595 Otu00596
##
                                              Otu00594
  CSI001 1.172663e-04
                               0
                                        0 0.000000e+00 2.345326e-05
                                                                             0
                               0
   CSI012 6.899883e-05
                                        0 3.449941e-05 8.624853e-05
                                                                             0
  CSI022 2.151556e-05
                               0
                                        0 6.454667e-05 4.303111e-05
                                                                             0
  CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
                               0
                                        0 0.000000e+00 0.000000e+00
  CSI055 9.251092e-04
                                                                             0
  CSI065 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
## CSI076 4.914147e-04
                               0
                                        0 2.890675e-05 0.000000e+00
                                                                             0
##
              Otu00597
                            Otu00598
                                         Otu00599 Otu00600 Otu00601
```

```
## CSI001 7.035977e-04 3.987054e-04 3.189643e-03
                                                                 0
  CSI012 8.969848e-04 1.673222e-03 1.379977e-04
                                                        0
                                                                 0
  CSI022 3.012178e-04 3.657644e-04 2.151556e-05
                                                        0
                                                                 0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
  CSI055 8.605667e-05 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
   CSI076 8.672024e-05 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
                                                     Otu00605
##
              Otu00602
                           Ot:1100603
                                        Ot:1100604
                                                                  Ot.1100606
  CSI001 9.381303e-05 0.0012664759 0.000000e+00 2.345326e-05 0.000000e+00
  CSI012 0.000000e+00 0.0012419789 0.000000e+00 0.000000e+00 1.724971e-05
  CSI022 8.606222e-05 0.0002151556 0.000000e+00 4.303111e-05 2.151556e-05
  CSI044 1.971570e-05 0.0000000000 3.943140e-05 0.000000e+00 0.000000e+00
  CSI055 2.796842e-04 0.0005163400 2.151417e-05 0.000000e+00 0.000000e+00
   CSI065 1.134602e-04 0.0003782005 7.564010e-05 0.000000e+00 0.000000e+00
  CSI076 9.828294e-04 0.0001734405 0.000000e+00 0.000000e+00 0.000000e+00
##
          Otu00607
                       Otu00608 Otu00609
                                             Otu00610
                                                          Otu00611 Otu00612
## CSI001
                 0 4.690652e-05
                                       0 4.925184e-04 0.000000e+00
                                                                           0
  CSI012
                 0 7.589871e-04
                                       0 5.174912e-05 0.000000e+00
                                                                           0
                                       0 8.606222e-05 0.000000e+00
## CSI022
                 0 4.303111e-05
                                                                          0
## CSI044
                 0 0.00000e+00
                                       0 0.000000e+00 0.000000e+00
                                                                           0
##
  CSI055
                 0 1.505992e-03
                                       0 0.000000e+00 5.808825e-04
                                                                           0
                 0 3.782005e-05
                                       0 0.000000e+00 0.000000e+00
  CST065
                                                                           0
                                       0 0.000000e+00 1.127363e-03
## CSI076
                 0 1.445337e-04
                                                                           0
                                        Otu00615 Otu00616 Otu00617
##
              Otu00613
                           Otu00614
## CSI001 7.035977e-05 2.814391e-04 4.690652e-05
                                                                 0
  CSI012 1.724971e-05 4.312427e-04 5.174912e-05
                                                        0
                                                                 0
  CSI022 0.000000e+00 6.454667e-05 5.594044e-04
                                                        0
                                                                 0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
  CSI055 3.055012e-03 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
  CSI065 7.942211e-04 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
##
  CSI076 3.353183e-03 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
##
              Otu00618
                           Otu00619
                                        Otu00620
                                                     Otu00621
                                                                  Ot:1100622
  CSI001 2.345326e-05 4.690652e-05 2.345326e-05 2.345326e-05 1.196116e-03
  CSI012 1.724971e-05 2.587456e-04 6.899883e-04 0.000000e+00 4.139930e-04
  CSI022 0.000000e+00 0.000000e+00 6.669822e-04 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 7.886280e-05 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 1.441449e-03 1.721133e-04 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00 0.000000e+00 1.134602e-04 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 1.156270e-04 1.734405e-04 0.000000e+00 0.000000e+00
##
                           Otu00624
                                        Otu00625
                                                     Otu00626 Otu00627
              Otu00623
  CSI001 0.0000000000 4.690652e-05 0.000000e+00 0.0000000000
## CSI012 0.0000000000 1.552474e-04 0.000000e+00 0.0000000000
                                                                     0
  CSI022 0.0000000000 8.606222e-05 1.721244e-04 0.0000000000
                                                                     0
  CSI044 0.0000000000 3.943140e-05 0.000000e+00 0.0000000000
                                                                     0
  CSI055 0.0031840967 0.000000e+00 0.000000e+00 0.0000000000
                                                                     0
  CSI065 0.0000000000 3.782005e-05 0.000000e+00 0.0000000000
                                                                     0
##
  Otu00628 Otu00629 Otu00630 Otu00631
##
                                                      Otu00632
                                                                    Otu00633
## CSI001 9.381303e-05
                              0
                                       0
                                                0 0.000000e+00 1.594822e-03
## CSI012 2.587456e-04
                              0
                                       0
                                                0 0.000000e+00 5.347409e-04
                              0
                                       0
                                                0 0.000000e+00 1.420027e-03
## CSI022 5.228280e-03
## CSI044 0.000000e+00
                              0
                                       0
                                                0 0.000000e+00 1.577256e-03
## CSI055 0.000000e+00
                              0
                                       0
                                                0 6.454250e-04 0.000000e+00
## CSI065 0.000000e+00
                              0
                                       0
                                                0 0.000000e+00 3.782005e-04
```

```
## CSI076 0.000000e+00
                              0
                                       0
                                                0 8.672024e-05 0.000000e+00
##
              Otu00634 Otu00635 Otu00636
                                             Ot:1100637
                                                          Ot:1100638
## CSI001 0.000000e+00
                              0
                                       0 7.505042e-04 0.000000e+00
  CSI012 1.724971e-05
                              0
                                       0 4.484924e-04 0.000000e+00
  CSI022 0.000000e+00
                              0
                                       0 1.075778e-04 0.000000e+00
                              0
                                       0 0.000000e+00 0.000000e+00
## CSI044 1.971570e-05
                              0
  CSI055 0.000000e+00
                                       0 0.000000e+00 3.011983e-04
## CSI065 0.000000e+00
                              0
                                       0 0.000000e+00 7.564010e-05
  CSI076 2.890675e-05
                              0
                                       0 5.781349e-05 7.804822e-04
                                                     Otu00642 Otu00643
##
              Otu00639
                           Otu00640
                                        Otu00641
  CSI001 0.0019935269 1.477555e-03 0.000000e+00 2.345326e-05
  CSI012 0.0011212309 1.431726e-03 0.000000e+00 3.449941e-05
                                                                     0
  CSI022 0.0006239511 0.000000e+00 4.303111e-05 2.151556e-05
                                                                     0
  CSI044 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
  CSI055 0.0003442267 1.290850e-04 0.000000e+00 0.000000e+00
                                                                     0
   CSI065 0.0000000000 0.000000e+00 0.000000e+00 3.782005e-04
                                                                     0
  CSI076 0.0001156270 0.000000e+00 0.000000e+00 1.445337e-04
                                                                     0
##
              Otu00644 Otu00645 Otu00646 Otu00647 Otu00648
                                                               Otu00649
## CSI001 1.805901e-03
                                                         0 0.000000e+00
                              0
                                       0
                                                0
## CSI012 1.052232e-03
                              0
                                       0
                                                0
                                                         0 0.00000e+00
## CSI022 4.711907e-03
                              0
                                       0
                                                0
                                                         0 0.00000e+00
## CSI044 1.971570e-05
                              0
                                       0
                                                0
                                                         0.000000e+00
## CSI055 0.000000e+00
                              0
                                       0
                                                0
                                                         0 0.00000e+00
                              0
                                       0
                                                0
  CSI065 3.025604e-04
                                                         0 0.000000e+00
  CSI076 0.000000e+00
                              0
                                       0
                                                0
                                                         0 0.000000e+00
              Otu00650
                           Otu00651
                                        Otu00652
                                                    Otu00653
                                                                 Otu00654
## CSI001 0.000000e+00 0.000000e+00 0.0052535297 0.00000e+00 0.000000e+00
  CSI012 0.000000e+00 0.000000e+00 0.0000000000 0.00000e+00 0.00000e+00
  CSI022 0.000000e+00 2.151556e-05 0.0000000000 0.00000e+00 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00 0.0000000000 1.97157e-05 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00 0.0000000000 0.00000e+00 4.302833e-05
   CSI065 0.000000e+00 0.000000e+00 0.0000000000 0.00000e+00 1.664082e-03
   CSI076 0.000000e+00 0.000000e+00 0.0012140834 0.00000e+00 2.110193e-03
                           Otu00656
##
              Otu00655
                                        Otu00657
                                                     Otu00658
                                                                  0 \pm 1100659
  CSI001 7.035977e-05 0.000000e+00 0.000000e+00 5.628782e-04 0.0010553966
  CSI012 1.724971e-05 0.000000e+00 0.000000e+00 2.449458e-03 0.0007417374
  CSI022 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.0001290933
  CSI055 2.000818e-03 2.151417e-05 0.000000e+00 9.896517e-04 0.0000000000
  CSI065 0.000000e+00 0.000000e+00 3.782005e-05 1.891003e-04 0.0000000000
   CSI076 5.116494e-03 3.179742e-04 0.000000e+00 8.672024e-05 0.0000000000
          Otu00660
                      Otu00661 Otu00662 Otu00663
                                                     Otu00664 Otu00665
##
##
  CSI001
                 0 0.00000000
                                      0
                                               0 3.517989e-04
                                                                     0
                                      0
                                                                     0
## CSI012
                 0 0.00000000
                                               0 2.587456e-04
## CSI022
                 0 0.000000000
                                      0
                                               0 2.151556e-05
                                                                     0
## CSI044
                 0 0.000000000
                                      0
                                                                     0
                                               0 0.00000e+00
##
  CSI055
                 0 0.000000000
                                      0
                                               0 0.00000e+00
                                                                     0
                                      0
                                                                     0
##
  CSI065
                 0 0.001966643
                                               0 0.00000e+00
##
   CST076
                 0 0.00000000
                                      0
                                               0 0.000000e+00
                                                                     0
##
          Otu00666 Otu00667
                                Otu00668 Otu00669
                                                 Otu00670 Otu00671
## CSI001
                 0
                          0 6.566912e-04
                                                0
                                                         0
                                                                  0
                 0
                                                0
                                                         0
## CSI012
                          0 5.864900e-04
                                                                  0
## CSI022
                 0
                          0 0.000000e+00
                                                0
                                                         0
                                                                  0
## CSI044
                 0
                          0 0.000000e+00
                                                0
                                                         0
                                                                  0
```

```
## CSI055
                 0
                           0 1.505992e-04
                                                 0
                                                           0
                                                                    0
  CSI065
                                                 0
                                                           0
                                                                    0
                 0
                           0 3.025604e-04
##
  CSI076
                 0
                           0 8.672024e-05
                                                           0
                                                                    0
##
              Otu00672 Otu00673
                                                  Otu00675 Otu00676
                                     0t.1100674
##
  CSI001 0.0001172663
                               0 2.345326e-05 3.517989e-04
                                                                   0
  CSI012 0.0006899883
                               0 0.000000e+00 1.138481e-03
                                                                   0
  CSI022 0.0000000000
                               0 0.000000e+00 1.011231e-03
                                                                   0
  CSI044 0.0000000000
                               0 1.971570e-05 0.000000e+00
                                                                   0
   CSI055 0.0002151417
                               0 1.441449e-03 0.000000e+00
                                                                   0
                                                                   Λ
   CSI065 0.0000756401
                               0 9.076813e-04 0.000000e+00
   CSI076 0.0002023472
                               0 1.532058e-03 0.000000e+00
                                                                   0
##
              Otu00677
                            Otu00678
                                         Otu00679
                                                       Otu00680
                                                                    Otu00681
##
  CSI001 4.690652e-05 0.0000000000 0.000000e+00 3.752521e-04 0.000000e+00
   CSI012 0.000000e+00 0.0000000000 0.000000e+00 2.242462e-04 5.174912e-04
  CSI022 0.000000e+00 0.0003442489 0.000000e+00 1.721244e-04 1.075778e-04
   CSI044 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 5.808825e-04
   CSI065 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 5.781349e-05
##
##
              Otu00682
                            Otu00683
                                         Otu00684
                                                      Otu00685 Otu00686
##
  CSI001 4.690652e-05 0.000000e+00 5.534969e-03 0.0008443173
                                                                       0
  CSI012 0.000000e+00 0.000000e+00 0.000000e+00 0.0003967433
                                                                       0
  CSI022 0.000000e+00 0.000000e+00 1.290933e-04 0.0002366711
                                                                       0
   CSI044 0.000000e+00 3.943140e-05 0.000000e+00 0.000000000
                                                                       0
   CSI055 0.000000e+00 0.000000e+00 1.505992e-04 0.0000000000
                                                                       0
   CSI065 0.000000e+00 0.000000e+00 4.160206e-04 0.000000000
                                                                       0
   CSI076 0.000000e+00 0.000000e+00 5.781349e-05 0.0000000000
                                                                       0
##
##
              Otu00687 Otu00688
                                     Otu00689 Otu00690 Otu00691 Otu00692
                                                               0
                                                                        0
##
  CSI001 2.345326e-05
                               0 0.00000e+00
                                                     0
  CSI012 0.000000e+00
                               0 0.00000e+00
                                                     0
                                                               0
                                                                        0
   CSI022 2.151556e-05
                               0 0.00000e+00
                                                     0
                                                               0
                                                                        0
   CSI044 1.971570e-05
                               0.0.000000e+00
                                                     0
                                                               0
                                                                        0
   CSI055 2.151417e-05
                               0 0.00000e+00
                                                     0
                                                               0
                                                                        0
                                                               0
  CSI065 0.000000e+00
                               0 0.00000e+00
                                                     0
                                                                        0
   CSI076 2.890675e-05
                               0 0.00000e+00
                                                     0
                                                               0
                                                                        0
##
                       Otu00694
          Otu00693
##
                                     Ot:1100695
                                                  Ot:1100696
                                                                Ot:1100697
## CSI001
                 0 0.000000000 0.000000000 7.035977e-05 0.000000e+00
## CSI012
                 0 0.000000000 0.000000000 1.724971e-04 0.000000e+00
                 0 0.000000000 0.0022591334 6.454667e-05 2.151556e-05
  CST022
                 0 0.000000000 0.000000000 7.886280e-05 0.000000e+00
##
  CSI044
                 0 0.0005593683 0.0000000000 2.151417e-05 0.000000e+00
  CSI055
                 0 0.0000756401 0.0003025604 2.647404e-04 3.782005e-05
##
  CST065
##
   CST076
                 Ω
                   0.0001734405 0.0000000000 9.828294e-04 0.000000e+00
                                                  Otu00701 Otu00702 Otu00703
##
          Otu00698
                       Otu00699
                                     Otu00700
## CSI001
                 0 2.579858e-04 0.000000000 0.000000e+00
                                                                   0
                                                                             0
  CSI012
                 0 5.174912e-05 0.0006209894 1.034982e-04
                                                                   0
##
                                                                            0
##
  CSI022
                 0 2.151556e-05 0.0001075778 6.454667e-05
                                                                   0
                                                                             0
  CSI044
                 0 0.000000e+00 0.000000000 0.000000e+00
                                                                   0
                                                                             0
##
  CSI055
                 0 2.796842e-03 0.0001505992 2.151417e-05
                                                                   0
                                                                            0
  CSI065
                   3.782005e-05 0.0003782005 0.000000e+00
                                                                   0
                                                                             0
##
                   7.949355e-03 0.0000000000 2.630514e-03
##
  CST076
                 0
                                                                   0
                                                                             0
##
          Otu00704
                       Otu00705
                                     Otu00706
                                                  Otu00707
                                                                Otu00708
## CSI001
                 0 7.035977e-05 0.000000e+00 0.000000e+00 0.0000000000
## CSI012
                 0 2.069965e-04 0.000000e+00 0.000000e+00 0.0000000000
```

```
## CSI022
                 0 2.452773e-03 4.303111e-05 2.151556e-05 0.0000000000
                 0 0.000000e+00 1.182942e-04 1.971570e-05 0.0000000000
  CST044
   CSI055
                 0 0.000000e+00 0.000000e+00 2.796842e-04 0.0000000000
                 0 0.000000e+00 0.000000e+00 7.942211e-04 0.0002269203
  CSI065
##
##
   CST076
                 0 0.000000e+00 0.000000e+00 7.804822e-04 0.0000000000
                            Otu00710 Otu00711
                                                   Otu00712
##
              Otu00709
                                                                 Ot:1100713
   CSI001 1.641728e-04 0.000000e+00
                                             0 2.345326e-05 3.283456e-04
                                             0 1.724971e-05 3.449941e-05
  CSI012 5.174912e-05 5.174912e-05
   CSI022 8.606222e-05 0.000000e+00
                                             0 8.606222e-05 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 3.943140e-05
   CSI055 7.529958e-04 4.517975e-04
                                             0 0.000000e+00 4.690088e-03
   CSI065 2.647404e-04 1.512802e-04
                                             0 3.782005e-05 4.160206e-04
   CSI076 5.781349e-04 2.225820e-03
                                             0 0.000000e+00 5.723536e-03
                                                                  Otu00719
##
          Otu00714
                        Otu00715 Otu00716 Otu00717 Otu00718
  CSI001
                 0 0.000000e+00
                                        0
                                                  0
                                                           0 0.000000000
##
##
   CSI012
                 0 0.00000e+00
                                         0
                                                  0
                                                            0 0.0000000000
                                                  0
##
   CSI022
                 0 0.00000e+00
                                        0
                                                           0 0.000000000
                                                            0 0.0001971570
   CSI044
                 0 0.00000e+00
                                         0
                                                  0
  CSI055
                                         0
                                                  0
                 0 7.099675e-04
                                                           0 0.0001075708
##
   CSI065
                 0 3.782005e-05
                                         0
                                                  0
                                                            0 0.0004160206
##
   CST076
                 0 1.011736e-03
                                         0
                                                  0
                                                           0 0.0061282303
              Otu00720 Otu00721 Otu00722 Otu00723
##
                                                        Ot:1100724
                                                                      Ot:1100725
  CSI001 2.345326e-05
                                                  0 4.878278e-03 0.000000e+00
                               0
                                         0
                                         0
   CSI012 3.449941e-05
                               0
                                                    1.190230e-03 0.000000e+00
   CSI022 2.151556e-05
                               0
                                         0
                                                    2.366711e-04 0.000000e+00
   CSI044 0.000000e+00
                               0
                                         0
                                                    0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                               0
                                        0
                                                  0 4.302833e-05 5.378542e-04
                                         0
   CSI065 0.000000e+00
                               0
                                                  0 0.000000e+00 2.269203e-04
   CSI076 0.000000e+00
                               0
                                         0
                                                  0 8.672024e-05 8.672024e-04
##
##
              Otu00726
                            Otu00727 Otu00728 Otu00729
                                                             Otu00730 Otu00731
##
   CSI001 7.270510e-04 1.641728e-04
                                             0
                                                      0 4.690652e-05
                                                                             0
   CSI012 8.452356e-04 1.724971e-04
                                             0
                                                      0 1.724971e-05
                                                                             0
   CSI022 1.506089e-04 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
                                             0
   CSI044 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
   CSI055 1.290850e-04 1.333878e-03
                                             0
                                                      0 7.314817e-04
                                                                             0
                                                      0 0.000000e+00
   CSI065 3.782005e-05 0.000000e+00
                                             0
                                                                             0
   CSI076 5.781349e-05 2.890675e-05
                                             0
                                                      0 9.828294e-04
##
          Otu00732 Otu00733
                                 Otu00734 Otu00735 Otu00736
                                                                  Otu00737
## CSI001
                 0
                           0 0.0000000000
                                                  0
                                                            0 0.000000e+00
  CSI012
                 0
                                                  0
##
                           0 0.000000000
                                                           0.000000e+00
                 0
  CSI022
                           0 0.000000000
                                                  0
                                                           0 0.00000e+00
  CSI044
                 0
                                                  0
##
                           0
                            0.0000000000
                                                           0.000000e+00
   CSI055
                 0
                           0 0.000000000
                                                  0
                                                           0 0.00000e+00
                                                  0
   CSI065
                  0
                           0 0.000000000
                                                           0 0.00000e+00
##
##
   CSI076
                           0 0.0006359484
                                                  0
                                                           0 0.00000e+00
              Otu00738 Otu00739 Otu00740
                                               Otu00741 Otu00742 Otu00743
##
   CSI001 0.000000e+00
                               0
                                         0 7.035977e-05
                                                                0
                                                                         0
                               0
                                                                0
                                                                         0
   CSI012 0.000000e+00
                                         0 3.449941e-05
   CSI022 2.151556e-05
                               0
                                         0 6.454667e-05
                                                                0
                                                                         0
   CSI044 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                         0
   CSI055 1.505992e-04
                               0
                                                                0
                                                                         0
                                         0 4.733117e-04
   CSI065 0.000000e+00
                               0
                                         0 6.051208e-04
                                                                0
                                                                         0
##
   CSI076 0.000000e+00
                               0
                                         0 4.625079e-04
                                                                0
                                                                         0
##
          Otu00744
                        Otu00745
                                     Otu00746 Otu00747 Otu00748
                                                                      Otu00749
```

```
## CSI001
                 0 0.000000e+00 4.690652e-05
                                                     0
                                                              0 4.221586e-04
## CST012
                 0 3.449941e-05 9.832333e-04
                                                              0 2.587456e-04
                                                     0
                                                              0 4.303111e-05
## CSI022
                 0 3.227333e-04 5.163733e-04
                                                     0
## CSI044
                 0 0.000000e+00 1.971570e-05
                                                     0
                                                              0 0.000000e+00
##
  CST055
                 0 3.764979e-03 0.000000e+00
                                                     0
                                                              0 0.000000e+00
                 0 0.000000e+00 0.000000e+00
  CST065
                                                     0
                                                              0 1.134602e-04
##
                 0 8.672024e-05 4.914147e-04
  CSI076
                                                     0
                                                              0 1.445337e-04
                                                 Otu00753
##
          Otu00750
                      Ot:1100751
                                    Ot:1100752
                                                              Ot:1100754
## CSI001
                 0 0.00000e+00 0.000000e+00 0.000000000 1.008490e-03
## CSI012
                 0 0.00000e+00 0.000000e+00 0.000000000 1.776720e-03
## CSI022
                 0 0.00000e+00 0.000000e+00 0.0002151556 1.721244e-04
                 0 1.97157e-05 0.000000e+00 0.000000000 0.000000e+00
## CSI044
##
  CSI055
                 0.00000e+00 4.517975e-04 0.000000000 2.151417e-05
## CSI065
                 0 0.00000e+00 2.269203e-04 0.000000000 0.000000e+00
  CSI076
                 0 0.00000e+00 1.098456e-03 0.000000000 0.000000e+00
##
##
              Otu00755 Otu00756
                                    Otu00757 Otu00758
                                                           Otu00759 Otu00760
  CSI001 7.035977e-05
##
                              0 1.078850e-03
                                                     0 4.690652e-05
                                                                            0
  CSI012 8.624853e-05
                              0 4.657421e-04
                                                     0 0.00000e+00
                                                                            0
  CSI022 2.151556e-05
                              0 4.303111e-05
                                                     0 0.000000e+00
                                                                            0
## CSI044 0.000000e+00
                              0 0.00000e+00
                                                     0 1.971570e-05
                                                                            0
  CSI055 0.000000e+00
                              0 3.872550e-04
                                                     0 1.054194e-03
                                                                            0
  CSI065 0.000000e+00
                              0 1.928823e-03
                                                     0 1.512802e-04
## CSI076 0.000000e+00
                              0 1.907845e-03
                                                     0 8.672024e-04
                                                                            0
              Otu00761
                          Otu00762
                                        Otu00763
                                                     Otu00764
                                                                   Otu00765
## CSI001 9.381303e-05 0.000000000 0.000000e+00 4.690652e-04 1.407195e-04
  CSI012 8.624853e-05 0.000000000 8.624853e-05 6.037397e-04 6.485890e-03
  CSI022 0.000000e+00 0.000000000 0.000000e+00 3.872800e-04 2.861569e-03
  CSI044 2.011001e-03 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.003980121 0.000000e+00 2.151417e-05 0.000000e+00
  CSI065 0.000000e+00 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI076 0.000000e+00 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
##
              Otu00766
                           Otu00767 Otu00768
                                                  Otu00769
                                                               Otu00770
  CSI001 0.000000e+00 6.566912e-04
                                            0 1.172663e-03 0.000000e+00
  CSI012 2.069965e-04 2.069965e-04
                                            0 4.829918e-04 0.000000e+00
  CSI022 1.075778e-04 0.000000e+00
                                            0 4.303111e-04 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0 9.857850e-05 0.000000e+00
  CSI055 2.151417e-04 2.366558e-04
                                            0 1.290850e-04 0.000000e+00
  CSI065 1.134602e-04 0.000000e+00
                                            0 1.512802e-04 0.000000e+00
  CSI076 2.890675e-05 5.492282e-04
                                            0 7.226687e-04 2.890675e-05
                       Otu00772 Otu00773 Otu00774
##
          Otu00771
                                                       Otu00775
                                                                    Ot.1100776
## CSI001
                 0 2.345326e-05
                                        0
                                                 0 0.000000e+00 3.048923e-04
## CSI012
                 0 5.174912e-05
                                        0
                                                 0 0.000000e+00 1.121231e-03
## CSI022
                 0 3.442489e-04
                                        0
                                                 0 6.454667e-05 6.454667e-05
                                        0
                 0 0.00000e+00
                                                 0 0.000000e+00 0.000000e+00
## CSI044
## CSI055
                 0 0.00000e+00
                                        0
                                                 0 0.000000e+00 0.000000e+00
## CSI065
                                        0
                                                 0 1.883439e-02 1.134602e-04
                 0 0.00000e+00
##
  CSI076
                 0 0.000000e+00
                                        0
                                                 0 0.000000e+00 0.000000e+00
##
              Otu00777
                           Otu00778 Otu00779
                                                  Otu00780 Otu00781
## CSI001 0.0020638867 5.863314e-04
                                            0 3.987054e-04
                                                                   0
## CSI012 0.0016387221 1.034982e-04
                                            0 4.657421e-04
                                                                   0
## CSI022 0.0017642756 8.606222e-05
                                                                   0
                                            0 1.936400e-04
## CSI044 0.000000000 0.000000e+00
                                            0 0.00000e+00
                                                                   0
## CSI055 0.0000000000 1.075708e-04
                                            0 3.657408e-04
                                                                   0
## CSI065 0.000000000 0.000000e+00
                                            0 0.000000e+00
```

```
## CSI076 0.000000000 0.000000e+00
                                            0 8.093889e-04
##
                           Ot:1100783
                                         Ot:1100784
                                                      Otu00785 Otu00786
              Ot:1100782
  CSI001 1.172663e-03 1.641728e-04 0.000000000 0.000000e+00
  CSI012 1.431726e-03 0.000000e+00 0.0000000000 2.414959e-04
                                                                       0
  CSI022 6.024356e-04 0.000000e+00 0.0000000000 5.594044e-04
                                                                       0
  CSI044 0.000000e+00 7.886280e-05 0.0043966010 0.000000e+00
                                                                       0
  CSI055 0.000000e+00 0.000000e+00 0.0037004367 0.000000e+00
                                                                       0
## CSI065 3.782005e-05 0.000000e+00 0.0001891003 0.000000e+00
                                                                       0
  CSI076 0.000000e+00 2.890675e-05 0.000000000 0.000000e+00
                                                                       0
##
              Otu00787
                           Otu00788
                                         Otu00789
                                                      Otu00790 Otu00791
  CSI001 0.0000000000 0.000000e+00 7.270510e-04 1.407195e-04
                                                                       0
  CSI012 0.0001724971 0.000000e+00 1.034982e-04 1.379977e-04
                                                                       0
  CSI022 0.0007315289 0.000000e+00 0.000000e+00 2.151556e-05
                                                                       0
  CSI044 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
  CSI055 0.0006239108 0.000000e+00 5.593683e-04 1.936275e-04
                                                                       0
   CSI065 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
  CSI076 0.0002023472 0.000000e+00 5.781349e-05 2.890675e-05
                                                                       0
##
          Otu00792
                       Otu00793
                                     Otu00794
                                                  Otu00795 Otu00796 Otu00797
## CSI001
                 0 0.000000e+00 2.345326e-05 2.345326e-05
                                                                   0
                                                                            0
## CSI012
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
                                                                            0
##
  CSI022
                 0 0.000000e+00 0.000000e+00 2.581867e-04
                                                                   0
                                                                            0
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
  CST044
                                                                            0
                 0 0.000000e+00 0.000000e+00 6.454250e-05
## CSI055
                                                                   0
                                                                            0
                 0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
                                                                   0
                                                                            0
                 0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST076
                                                                   0
                                                                            0
              Otu00798 Otu00799 Otu00800
                                              Otu00801
                                                           Otu00802 Otu00803
  CSI001 0.000000e+00
                              0
                                        0 4.690652e-05 0.000000e+00
##
                                                                            0
  CSI012 5.347409e-04
                              0
                                        0 0.000000e+00 0.000000e+00
                                                                            0
                              0
  CSI022 2.151556e-05
                                        0 1.075778e-04 0.000000e+00
                                                                            0
  CSI044 0.000000e+00
                              0
                                        0 0.000000e+00 0.000000e+00
                                                                            0
  CSI055 8.605667e-05
                              0
                                        0 4.302833e-05 1.290850e-04
                                                                            0
  CSI065 1.134602e-04
                              0
                                        0 0.000000e+00 7.564010e-05
                                                                            0
   CSI076 0.000000e+00
                              0
                                        0 0.000000e+00 1.156270e-04
##
          Otu00804
                       Otu00805
                                     Ot:1100806
                                                  Otu00807
                                                                Dt:1100808
  CSI001
                 0 9.381303e-05 0.000000e+00 7.035977e-05 0.000000e+00
  CSI012
                 0 2.587456e-04 0.000000e+00 5.312910e-03 0.000000e+00
##
## CSI022
                 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                 0 0.000000e+00 5.914710e-05 0.000000e+00 1.971570e-05
## CSI044
                 0 0.000000e+00 3.872550e-04 0.000000e+00 0.000000e+00
  CST055
                 0 0.000000e+00 1.134602e-04 0.000000e+00 0.000000e+00
##
  CSI065
                 0 0.000000e+00 5.781349e-05 1.156270e-04 0.000000e+00
  CST076
              Otu00809 Otu00810
                                                  Otu00812
##
                                     0t.1100811
                                                                0t_{11}00813
  CSI001 1.196116e-03
                              0 1.172663e-04 2.579858e-04 0.000000e+00
                              0 1.724971e-05 0.000000e+00 0.000000e+00
  CSI012 7.244877e-04
  CSI022 2.581867e-04
                              0 0.000000e+00 0.000000e+00 0.000000e+00
                              0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00
  CSI055 4.302833e-05
                              0 6.454250e-05 6.454250e-05 8.820809e-04
  CSI065 0.000000e+00
                              0 0.000000e+00 0.000000e+00 4.160206e-04
##
  CSI076 5.781349e-05
                              0 8.672024e-05 9.828294e-04 6.359484e-04
              Otu00814 Otu00815
                                     Otu00816 Otu00817
                                                           Otu00818
                                                     0 0.000000000
## CSI001 4.690652e-05
                              0 9.615836e-04
## CSI012 6.899883e-05
                              0 8.279859e-04
                                                     0 0.000000000
## CSI022 2.151556e-05
                              0 1.011231e-03
                                                     0.0000000000
## CSI044 0.000000e+00
                              0 0.00000e+00
                                                     0 0.000000000
```

```
## CSI055 2.796842e-04
                             0 0.00000e+00
                                                   0 0.000000000
  CSI065 0.000000e+00
                             0 0.000000e+00
                                                   0 0.0001134602
  CSI076 0.000000e+00
                             0 0.00000e+00
                                                   0 0.000000000
##
             Otu00819
                          Otu00820
                                      Otu00821 Otu00822 Otu00823
  CSI001 0.000000e+00 6.332380e-04 0.000000000
                                                      0
                                                               0
  CSI012 0.000000e+00 2.587456e-04 0.000000000
                                                      0
                                                               0
  CSI022 0.000000e+00 4.087956e-04 0.003636129
                                                      0
                                                               0
  CSI044 0.000000e+00 0.000000e+00 0.000000000
                                                      0
                                                               0
  CSI055 2.151417e-05 0.000000e+00 0.000000000
                                                      Λ
                                                               0
                                                               0
  CSI065 0.000000e+00 0.000000e+00 0.000000000
                                                      0
   CSI076 0.000000e+00 0.000000e+00 0.000000000
                                                      0
                                                               0
##
             Otu00824
                          Otu00825
                                       Otu00826
                                                    Otu00827
                                                                 Otu00828
##
  CSI001 0.000000e+00 0.000000e+00 0.0002345326 1.641728e-04 1.641728e-04
  CSI012 0.000000e+00 1.724971e-05 0.0001897468 6.899883e-05 1.241979e-03
  CSI022 0.000000e+00 1.290933e-04 0.0000000000 3.313396e-03 2.151556e-05
  CSI044 0.000000e+00 0.000000e+00 0.0000000000 0.000000e+00 1.971570e-05
  CSI055 0.000000e+00 0.000000e+00 0.0004948258 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 0.000000e+00 0.0005781349 0.000000e+00 1.503151e-03
##
##
             Otu00829
                          Otu00830
                                       Otu00831
                                                    Otu00832
                                                                 Ot:1100833
  CSI001 0.000000e+00 0.0006097847 0.000000e+00 0.0004690652 1.923167e-03
##
  CSI012 0.000000e+00 0.0004484924 0.000000e+00 0.0011039812 1.224729e-03
  CSI022 0.000000e+00 0.0006239511 0.000000e+00 0.0009466845 1.506089e-04
  CSI055 6.454250e-05 0.0000000000 0.000000e+00 0.000000000 8.605667e-05
  CSI076 5.781349e-05 0.0000000000 2.890675e-04 0.0000000000 1.734405e-04
##
##
             Otu00834
                          Otu00835 Otu00836
                                                Otu00837
                                                             Otu00838
  CSI001 2.110793e-04 5.863314e-04
                                          0 0.000000e+00 1.172663e-04
##
  CSI012 1.207479e-04 5.692403e-04
                                          0 0.000000e+00 1.207479e-04
  CSI022 0.000000e+00 6.454667e-05
                                          0 0.000000e+00 2.151556e-05
  CSI044 0.000000e+00 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
  CSI055 1.290850e-04 0.000000e+00
                                          0 0.000000e+00 4.948258e-04
  CSI065 0.000000e+00 0.000000e+00
                                          0 1.512802e-04 3.782005e-05
   CSI076 5.492282e-04 2.890675e-05
                                          0 0.000000e+00 3.613343e-03
##
         Otu00839 Otu00840
                               Otu00841 Otu00842 Otu00843 Otu00844
##
## CSI001
                0
                         0 0.000000e+00
                                               0
                                                        0
                                                                 0
## CSI012
                0
                         0 0.000000e+00
                                               0
                                                        0
                                                                 0
                0
                                               0
                                                        0
  CST022
                         0 2.151556e-05
                                                                 0
                0
                                               0
                                                        Λ
                                                                 0
## CST044
                         0.000000e+00
                                               0
                                                        0
  CSI055
                0
                         0 4.302833e-05
                                                                 0
                0
                                               0
                                                        0
                                                                 0
##
  CSI065
                         0 7.942211e-04
##
  CST076
                0
                         0 1.156270e-04
                                               0
                                                        0
                          Otu00846 Otu00847 Otu00848 Otu00849
##
             Otu00845
                                                                  Otu00850
  CSI001 1.172663e-04 0.000000e+00
                                          0
                                                   0
                                                            0 4.690652e-05
  CSI012 6.899883e-05 0.000000e+00
                                          0
                                                   0
                                                            0 0.00000e+00
  CSI022 1.290933e-04 0.000000e+00
                                          0
                                                   0
                                                            0 0.00000e+00
                                          0
  CSI044 0.000000e+00 0.000000e+00
                                                   0
                                                            0 0.00000e+00
  CSI055 0.000000e+00 4.302833e-05
                                          0
                                                   0
                                                            0 6.454250e-05
  CSI065 2.307023e-03 7.110170e-03
                                          0
                                                   0
                                                            0 0.00000e+00
  CSI076 5.781349e-05 3.468810e-04
                                          0
##
                                                   0
                                                            0 2.890675e-05
##
             Otu00851
                          Otu00852 Otu00853
                                                Otu00854 Otu00855 Otu00856
## CSI001 0.000000000 7.035977e-05
                                          0 7.035977e-04
                                                                0
                                                                        0
## CSI012 0.000000000 8.624853e-05
                                          0 5.174912e-04
                                                                0
                                                                        0
```

```
## CSI022 0.000000000 0.000000e+00
                                            0 1.011231e-03
                                                                   0
                                                                             0
  CSI044 0.0000000000 0.000000e+00
                                                                   0
                                            0 0.00000e+00
                                                                             0
                                            0 8.605667e-05
  CSI055 0.0000000000 8.390525e-04
                                                                   0
                                                                             0
  CSI065 0.0000000000 3.782005e-05
                                            0 3.782005e-05
                                                                   0
                                                                            0
##
   CSI076 0.0004336012 6.359484e-04
                                            0 0.000000e+00
                                                                   0
          Otu00857
                       Otu00858
##
                                     Otu00859
                                                  Ot:1100860
                                                                Ot:1100861
  CSI001
                 0 3.752521e-04 2.345326e-05 1.336836e-03 9.381303e-05
## CSI012
                 0 7.762368e-04 1.724971e-05 0.000000e+00 0.000000e+00
  CSI022
                 0 2.151556e-05 6.454667e-05 0.000000e+00 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
   CSI055
                 0 0.000000e+00 6.669392e-04 0.000000e+00 1.290850e-04
                 0 3.782005e-05 1.134602e-04 0.000000e+00 7.564010e-05
##
   CSI065
##
   CSI076
                 0.000000e+00 8.672024e-04 3.468810e-04 3.121929e-03
                                                            Otu00866 Otu00867
##
              Otu00862 Otu00863
                                     Otu00864 Otu00865
  CSI001 4.221586e-04
                               0 0.000000e+00
                                                     0 0.000000e+00
                                                                            0
##
   CSI012 3.794935e-04
                               0 8.624853e-05
                                                     0 2.069965e-04
                                                                             0
  CSI022 8.606222e-05
                               0 0.00000e+00
                                                     0 2.151556e-05
                                                                             0
   CSI044 0.000000e+00
                               0 0.00000e+00
                                                     0 0.00000e+00
                                                                             0
  CSI055 3.227125e-04
                               0 0.00000e+00
                                                     0 0.000000e+00
                                                                            0
  CSI065 7.564010e-05
                               0 2.647404e-04
                                                     0 0.00000e+00
                                                                             0
##
  CSI076 4.336012e-04
                               0 5.781349e-05
                                                     0 2.023472e-04
                                                                             0
              Otu00868 Otu00869 Otu00870
                                              Otu00871
                                                            Otu00872 Otu00873
##
                                        0 0.0009381303 0.000000e+00
## CSI001 0.0010319433
                               0
                                                                             0
   CSI012 0.0021389636
                               0
                                        0 0.0017939695 0.000000e+00
                                                                             0
  CSI022 0.0007960756
                               0
                                        0 0.0009251689 2.151556e-05
                                                                             0
  CSI044 0.0000000000
                               0
                                        0 0.000000000 0.000000e+00
                                                                            0
  CSI055 0.0000000000
                               0
                                        0 0.0000000000 1.505992e-04
                                                                            0
                               0
   CSI065 0.0000000000
                                          0.000000000 0.000000e+00
                                                                             0
   CSI076 0.0000000000
                               0
                                        0 0.0000000000 1.040643e-03
                                                                             0
##
##
          Otu00874
                        Otu00875 Otu00876
                                          Otu00877
                                                        Otu00878
                                                                     Otu00879
##
  CSI001
                 0 3.517989e-04
                                        0
                                                 0 0.000000e+00 5.628782e-04
##
  CSI012
                 0 0.000000e+00
                                        0
                                                 0 8.624853e-05 6.382391e-04
  CSI022
                 0 4.303111e-05
                                        0
                                                 0 0.000000e+00 6.024356e-04
  CSI044
                                        0
                 0 0.00000e+00
                                                 0 1.182942e-04 0.000000e+00
##
   CSI055
                 0 0.00000e+00
                                        0
                                                   1.118737e-03 0.000000e+00
                 0 0.000000e+00
                                        0
                                                 0 3.782005e-05 0.000000e+00
##
  CST065
##
  CSI076
                 0 0.000000e+00
                                                 0 2.601607e-04 0.000000e+00
##
              D±1100880
                            Otu00881
                                         Otu00882
                                                       Otu00883 Otu00884
   CSI001 2.814391e-04 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI012 8.107362e-04 0.000000e+00 1.724971e-05 1.724971e-05
                                                                       0
   CSI022 1.290933e-04 6.454667e-05 0.000000e+00 0.000000e+00
                                                                       0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI076 2.890675e-05 0.000000e+00 0.000000e+00 0.000000e+00
##
              Otu00885
                            Otu00886 Otu00887
                                                   Otu00888
                                                                Otu00889
   CSI001 7.035977e-05 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00 3.449941e-05
                                            0 1.724971e-05 0.000000e+00
  CSI022 8.606222e-05 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
                                            0 0.00000e+00 0.00000e+00
   CSI055 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
                                            0 4.393826e-03 2.890675e-05
##
  CSI076 0.000000e+00 0.000000e+00
##
          Otu00890
                        Otu00891
                                     Otu00892
                                                   Otu00893
                                                                Otu00894
```

```
## CSI001
                 0 0.000000e+00 5.628782e-04 7.035977e-05 4.690652e-05
                 0 0.000000e+00 0.000000e+00 3.449941e-05 1.724971e-05
## CST012
## CSI022
                 0 6.454667e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
##
  CST055
                 0 0.000000e+00 4.517975e-04 0.000000e+00 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
##
                 0 0.000000e+00 4.336012e-04 4.625079e-04 0.000000e+00
  CSI076
              Otu00895
##
                           Otu00896
                                         Otu00897
                                                      Otu00898
                                                                   Ot:1100899
  CSI001 7.035977e-05 0.000000e+00 2.157700e-03 8.912238e-04 0.0002579858
  CSI012 2.759953e-04 0.000000e+00 0.000000e+00 3.449941e-05 0.0003104947
  CSI022 4.303111e-05 0.000000e+00 2.151556e-03 0.000000e+00 0.0001721244
  CSI044 0.000000e+00 0.000000e+00 1.971570e-05 1.971570e-05 0.0000000000
  CSI055 2.366558e-04 3.011983e-04 2.151417e-05 4.948258e-04 0.0000000000
   CSI065 0.000000e+00 3.782005e-04 0.000000e+00 7.942211e-04 0.0000000000
  CSI076 2.023472e-04 2.890675e-05 3.468810e-04 1.734405e-04 0.0000000000
##
              Otu00900
                           Otu00901
                                         Otu00902 Otu00903
                                                                Otu00904
  CSI001 0.000000e+00 0.0000000000 2.345326e-05
                                                         0 0.00000e+00
   CSI012 0.000000e+00 0.0000000000 3.449941e-05
                                                         0 0.00000e+00
  CSI022 0.000000e+00 0.000000000 0.000000e+00
                                                         0 2.581867e-04
  CSI044 0.000000e+00 0.000000000 0.000000e+00
                                                         0 0.00000e+00
  CSI055 4.302833e-05 0.0003227125 0.000000e+00
                                                         0 3.011983e-04
  CSI065 0.000000e+00 0.0003025604 0.000000e+00
                                                         0.0.000000e+00
  CSI076 0.000000e+00 0.0013297104 0.000000e+00
                                                         0 0.000000e+00
                           Otu00906 Otu00907 Otu00908
              Otu00905
                                                           Ot.1100909
## CSI001 0.000000e+00 2.345326e-05
                                            0
                                                     0 0.00000e+00
  CSI012 0.000000e+00 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI022 0.000000e+00 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI055 0.000000e+00 0.000000e+00
                                            0
                                                     0 2.151417e-05
  CSI065 0.000000e+00 0.000000e+00
                                            0
                                                     0 1.682992e-02
##
  CSI076 1.445337e-04 4.740706e-03
                                            0
                                                     0 0.00000e+00
##
              Otu00910 Otu00911 Otu00912
                                              Otu00913
                                                           0 \pm 1100914
  CSI001 0.000000e+00
                              0
                                        0 2.345326e-05 2.345326e-04
  CSI012 0.000000e+00
                              0
                                        0 0.000000e+00 1.034982e-04
  CSI022 0.000000e+00
                              0
                                        0 4.303111e-05 2.151556e-05
  CSI044 0.000000e+00
                              0
                                        0 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
                              0
                                        0 2.323530e-03 0.000000e+00
## CSI065 0.000000e+00
                              0
                                        0 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00
                              0
                                        0 2.196913e-03 0.000000e+00
                           Otu00916
                                         Otu00917
##
              Otu00915
                                                      Oti100918 Oti100919
  CSI001 0.000000e+00 0.000000e+00 4.690652e-05 1.172663e-04
## CSI012 0.000000e+00 1.724971e-05 3.449941e-05 0.000000e+00
                                                                       0
  CSI022 0.000000e+00 0.000000e+00 2.366711e-04 8.606222e-05
                                                                       0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 3.943140e-05
                                                                       0
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00 2.538672e-03
                                                                       0
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00 7.564010e-05
                                                                       0
##
  CSI076 1.445337e-04 0.000000e+00 0.000000e+00 2.890675e-04
          Otu00920 Otu00921 Otu00922
##
                                          Otu00923 Otu00924
                                                                 Otu00925
                                    0 1.196116e-03
                                                          0 1.688635e-03
## CSI001
                 0
                          0
## CSI012
                 0
                          0
                                    0 1.328227e-03
                                                          0 2.673705e-03
                 0
                          0
## CSI022
                                    0 2.581867e-04
                                                          0.5.378889e-04
## CSI044
                 0
                          0
                                    0 0.00000e+00
                                                          0 0.00000e+00
## CSI055
                 0
                          0
                                    0 0.00000e+00
                                                          0 8.605667e-05
## CSI065
                 0
                          0
                                    0 3.782005e-05
                                                          0 1.134602e-04
```

```
## CSI076
                 0
                           0
                                    0 0.00000e+00
                                                           0 0.00000e+00
##
          Ot1100926 Ot1100927
                                              Ot1100929 Ot1100930
                                 Ot:1100928
                                                                     Ot:1100931
## CSI001
                 0
                           0 0.000000e+00 0.000000e+00
                                                               0 7.035977e-05
## CSI012
                 0
                           0 0.000000e+00 0.000000e+00
                                                               0 3.449941e-05
## CSI022
                 0
                           0 0.000000e+00 2.151556e-05
                                                               0 0.00000e+00
                 0
                           0 0.000000e+00 0.000000e+00
## CST044
                                                               0 0.00000e+00
                           0 0.000000e+00 0.000000e+00
  CSI055
                 0
                                                               0 3.011983e-04
                           0 0.000000e+00 0.000000e+00
## CSI065
                 0
                                                               0 0.00000e+00
##
  CSI076
                 0
                           0 5.781349e-05 0.000000e+00
                                                               0 8.961092e-04
                            Otu00933 Otu00934 Otu00935
##
              Otu00932
                                                            Otu00936
  CSI001 0.0003987054 0.000000e+00
                                            0
                                                     0 1.219569e-03
  CSI012 0.0000000000 1.724971e-05
                                            0
                                                     0 5.347409e-04
  CSI022 0.0001721244 0.000000e+00
                                            0
                                                     0 3.012178e-04
                                                     0 0.00000e+00
   CSI044 0.0000000000 0.000000e+00
                                            0
  CSI055 0.0008390525 0.000000e+00
                                            0
                                                     0.0.000000e+00
   CSI065 0.0000000000 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI076 0.0003179742 0.000000e+00
                                            0
                                                     0 0.00000e+00
##
              Otu00937
                            Otu00938 Otu00939
                                                  Otu00940 Otu00941
  CSI001 0.000000e+00 9.381303e-05
##
                                            0 4.221586e-04
                                                                   0
## CSI012 0.000000e+00 1.552474e-04
                                            0 1.034982e-04
                                                                   0
  CSI022 0.000000e+00 4.303111e-05
                                            0 9.466845e-04
                                                                   0
  CSI044 0.000000e+00 1.577256e-04
                                            0.000000e+00
                                                                   0
  CSI055 0.000000e+00 2.151417e-05
                                            0 2.151417e-05
                                                                   0
  CSI065 0.000000e+00 0.000000e+00
                                            0 4.160206e-04
                                                                   0
  CSI076 0.000000e+00 3.757877e-04
                                            0 1.358617e-03
                                                                   0
              Otu00942 Otu00943
                                     Otu00944 Otu00945
                                                            Otu00946 Otu00947
## CSI001 0.000000e+00
                               0 0.000000e+00
                                                     0 0.000000000
                                                                            0
  CSI012 3.449941e-05
                               0 3.449941e-05
                                                     0 0.000000000
                                                                             0
  CSI022 0.000000e+00
                               0 0.00000e+00
                                                     0 0.000000000
                                                                             0
  CSI044 0.000000e+00
                               0 0.000000e+00
                                                     0 0.000000000
                                                                             0
  CSI055 0.000000e+00
                               0 1.290850e-04
                                                     0 0.000000000
                                                                            0
   CSI065 0.000000e+00
                               0 0.000000e+00
                                                     0.000000000
                                                                            0
   CSI076 8.672024e-05
                               0 8.672024e-05
                                                     0 0.000000000
                                                                             0
          Otu00948 Otu00949
##
                                 0 \pm 1100950
                                              Otu00951
                                                            Otu00952
## CSI001
                 0
                           0 9.381303e-05 4.221586e-04 1.407195e-04
  CSI012
                           0 1.379977e-04 4.657421e-04 1.034982e-04
##
                 0
## CSI022
                 0
                           0 0.000000e+00 1.290933e-04 1.506089e-04
## CSI044
                 Ω
                           0 0.000000e+00 0.000000e+00 0.000000e+00
                 0
                            1.936275e-04 0.000000e+00 4.302833e-05
  CST055
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST065
                 \cap
                           0 2.023472e-04 0.000000e+00 0.000000e+00
  CST076
                 0
##
              Otu00953 Otu00954
                                     Otu00955
                                                  Otu00956 Otu00957
  CSI001 2.345326e-05
                               0 0.000000000 0.000000000
                                                                   0
                                                                   0
  CSI012 0.000000e+00
                               0 0.000000000 0.0002587456
  CSI022 0.000000e+00
                               0 0.000000000 0.0001721244
                                                                   0
  CSI044 0.000000e+00
                               0 0.000000000 0.000000000
                                                                   0
   CSI055 0.000000e+00
                               0 0.0011402509 0.0000000000
                                                                   0
                                                                   0
   CSI065 0.000000e+00
                               0 0.0003025604 0.0000000000
##
  CSI076 0.000000e+00
                               0 0.0003179742 0.0000000000
                                                                   0
##
              Otu00958
                            Otu00959 Otu00960 Otu00961 Otu00962 Otu00963
  CSI001 0.0000000000 0.000000e+00
                                            0
                                                     0
                                                               0
                                                                        0
                                                               0
## CSI012 0.000000000 3.449941e-05
                                            0
                                                     0
                                                                        0
## CSI022 0.000000000 0.000000e+00
                                            0
                                                     0
                                                               0
                                                                        0
## CSI044 0.000000000 0.000000e+00
                                            0
                                                     0
                                                               0
                                                                        0
```

```
## CSI055 0.000000000 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
   CSI065 0.0000000000 0.000000e+00
                                                                0
                                                                          0
                                             0
                                                      0
   CSI076 0.0006937619 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
##
          Otu00964 Otu00965 Otu00966 Otu00967
                                                    Otu00968 Otu00969
##
  CST001
                  0
                           0
                                    0
                                              0 1.172663e-03
                                                                     0
  CSI012
                  0
                           0
                                                                     0
##
                                    0
                                              0 1.086732e-03
  CSI022
                  0
                           0
                                     0
                                              0 1.506089e-03
                                                                     0
## CSI044
                  0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
##
   CSI055
                  0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                           0
                                                                     Λ
##
   CSI065
                  0
                                     0
                                              0 0.00000e+00
##
   CSI076
                  0
                           0
                                              0 0.00000e+00
                                                                     0
                            Otu00971
##
              Otu00970
                                          Otu00972 Otu00973
                                                                 Otu00974
##
   CSI001 0.000000e+00 2.814391e-04 0.0011257564
                                                           0 0.000000000
   CSI012 0.000000e+00 1.724971e-05 0.0007417374
                                                           0 0.000000000
   CSI022 7.358320e-03 0.000000e+00 0.0001290933
                                                           0.000000000
   CSI044 0.000000e+00 0.000000e+00 0.0000000000
                                                           0 0.000000000
   CSI055 0.000000e+00 2.151417e-05 0.0000000000
                                                           0 0.0004302833
   CSI065 0.000000e+00 0.000000e+00 0.0000000000
                                                           0.0000000000
   CSI076 0.000000e+00 1.127363e-03 0.0000000000
##
                                                           0 0.000000000
##
          Otu00975 Otu00976
                                 Otu00977
                                               Otu00978 Otu00979 Otu00980
##
  CSI001
                  0
                           0 4.456119e-04 0.0011257564
                                                                0
                                                                          0
  CSI012
                  0
                           0 1.052232e-03 0.0001897468
                                                                0
                                                                          0
## CSI022
                  0
                           0 4.303111e-04 0.0001290933
                                                                0
                                                                          0
                             1.971570e-05 0.0000000000
                                                                0
##
   CSI044
                  0
                                                                          0
                  0
                                                                0
##
  CST055
                           0 0.000000e+00 0.0000000000
                                                                          0
   CSI065
                  0
                           0 2.647404e-04 0.0000000000
                                                                0
                                                                          0
   CSI076
                  0
                           0 0.000000e+00 0.0003179742
                                                                0
                                                                          0
##
##
              Otu00981 Otu00982
                                      Otu00983
                                                   Otu00984
                                                                 Otu00985
   CSI001 2.345326e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI012 1.724971e-05
                               0 0.000000e+00 0.000000e+00 1.724971e-05
   CSI022 2.797022e-04
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 6.454250e-05
                               0 0.000000e+00 0.000000e+00 1.505992e-04
                               0 0.000000e+00 3.782005e-05 3.782005e-05
##
   CSI065 4.160206e-04
   CSI076 2.890675e-05
                               0 3.468810e-04 0.000000e+00 7.515754e-04
##
          Otu00986 Otu00987
                                 Otu00988
                                               Otu00989
                                                             Otu00990 Otu00991
##
## CSI001
                  0
                           0 2.345326e-05 0.000000e+00 0.000000e+00
                                                                              0
##
  CSI012
                  0
                           0 0.000000e+00 2.587456e-04 0.000000e+00
                                                                              0
  CSI022
                  0
                             0.000000e+00 0.000000e+00 0.000000e+00
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST044
                                                                              0
                             0.000000e+00 1.398421e-03 0.000000e+00
   CSI055
                  0
                                                                              0
   CSI065
                  0
                             0.000000e+00 0.000000e+00 0.000000e+00
                                                                              0
##
##
   CST076
                  0
                           0
                             0.000000e+00 5.492282e-03 0.000000e+00
                                                                              0
          Otu00992 Otu00993
                                 Otu00994 Otu00995
                                                                      Otu00997
##
                                                         Otu00996
##
  CSI001
                  0
                           0 0.000000000
                                                  0 0.000000e+00 0.000000e+00
  CSI012
                  0
                           0 0.0000000000
                                                  0 0.000000e+00 0.000000e+00
##
##
   CSI022
                  0
                           0
                             0.000000000
                                                  0 0.000000e+00 0.000000e+00
                  0
##
   CSI044
                             0.0000394314
                                                  0 0.000000e+00 0.000000e+00
                             0.0000645425
##
   CSI055
                  0
                                                    0.000000e+00 0.000000e+00
##
   CSI065
                  0
                           0
                             0.000000000
                                                    0.000000e+00 0.000000e+00
                  0
                                                    0.000000e+00 0.000000e+00
##
   CST076
                           0
                             0.000000000
                                                  0
##
          Otu00998 Otu00999
                                 Otu01000 Otu01001
                                                         Otu01002 Otu01003
## CSI001
                           0 0.000000e+00
                  0
                                                  0 3.517989e-04
                                                                          0
## CSI012
                  0
                           0 0.000000e+00
                                                  0 1.034982e-04
                                                                          0
```

```
## CSI022
                 0
                          0 0.00000e+00
                                                 0 0.00000e+00
                                                                        0
                 0
                                                                        0
## CSI044
                          0 3.943140e-05
                                                 0 0.00000e+00
  CSI055
                          0 8.605667e-05
                 0
                                                 0 6.454250e-04
                                                                        0
  CSI065
                 0
                            1.512802e-04
                                                                        0
##
                                                 0 1.134602e-04
##
   CST076
                 0
                          0 2.890675e-05
                                                 0 1.156270e-04
                                                                        0
              Otu01004 Otu01005 Otu01006
##
                                              Otu01007
                                                           Otu01008
  CSI001 0.000000e+00
                              0
                                        0 1.641728e-04 0.0002110793
## CSI012 0.000000e+00
                              0
                                        0 1.034982e-04 0.0028634513
  CSI022 0.000000e+00
                              0
                                        0 2.280649e-03 0.0001075778
  CSI044 0.000000e+00
                              0
                                        0 0.000000e+00 0.0000000000
  CSI055 0.000000e+00
                              0
                                        0 4.302833e-05 0.0000000000
                              0
                                        0 0.000000e+00 0.0000000000
   CSI065 0.000000e+00
   CSI076 0.000000e+00
                              0
                                        0 0.000000e+00 0.0000000000
##
##
              Otu01009
                           Otu01010
                                         Otu01011
                                                      Otu01012 Otu01013
  CSI001 1.172663e-04 4.596839e-03 0.000000e+00 0.000000e+00
                                                                       0
   CSI012 1.207479e-04 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI022 6.454667e-04 0.000000e+00 0.000000e+00 2.151556e-05
                                                                       0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 1.635077e-03 0.000000e+00 1.936275e-04
                                                                       0
   CSI065 1.891003e-04 0.000000e+00 0.000000e+00 7.564010e-05
                                                                       0
##
   CSI076 1.156270e-04 0.000000e+00 0.000000e+00 4.625079e-04
                                                                       0
##
          Ot.1101014
                       Ot:1101015
                                     Ot:1101016
                                                  Ot:1101017
## CSI001
                 0 1.735541e-03 0.000000e+00 0.0001407195 2.345326e-05
                 0 5.864900e-04 1.724971e-05 0.0005519906 0.000000e+00
  CSI012
## CSI022
                 0 8.606222e-05 0.000000e+00 0.0006024356 0.000000e+00
  CSI044
                 0 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
  CSI055
                 0 0.000000e+00 2.581700e-03 0.0000000000 1.613563e-03
##
##
  CSI065
                 0 0.000000e+00 7.564010e-05 0.0000000000 3.782005e-05
                 0 5.781349e-05 1.445337e-04 0.000000000 2.890675e-04
##
   CSI076
##
              Otu01019
                           Otu01020
                                         Otu01021
                                                      Otu01022
                                                                    Otu01023
   CSI001 1.665181e-03 0.000000e+00 0.0018293541 9.381303e-05 1.407195e-04
   CSI012 7.417374e-04 0.000000e+00 0.0013627268 5.174912e-05 0.000000e+00
   CSI022 4.303111e-05 0.000000e+00 0.0001290933 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00 4.302833e-05
  CSI065 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00 0.00000e+00
   CSI076 0.000000e+00 5.781349e-05 0.0002890675 5.781349e-05 0.000000e+00
##
                           Otu01025 Otu01026 Otu01027
              Ot:1101024
                                                            Ot:1101028
  CSI001 0.000000e+00 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI012 0.000000e+00 0.000000e+00
                                            0
                                                     0.000000e+00
                                            0
  CSI022 0.000000e+00 0.000000e+00
                                                     0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0
                                                     0.000000e+00
  CSI055 0.000000e+00 2.151417e-05
                                            0
                                                     0 4.087692e-04
                                            0
   CSI065 3.782005e-05 3.782005e-05
                                                     0 0.00000e+00
   CSI076 0.000000e+00 9.828294e-04
                                            0
                                                     0 3.757877e-04
                                        Otu01031
                                                     Otu01032 Otu01033
##
              Otu01029
                           Otu01030
  CSI001 1.196116e-03 1.407195e-04 0.000000000 4.221586e-04
                                                                      0
                                                                      0
   CSI012 6.382391e-04 4.657421e-04 0.000000000 6.209894e-04
  CSI022 1.506089e-04 8.606222e-05 0.000000000 2.151556e-04
                                                                      0
   CSI044 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                      0
  CSI055 0.000000e+00 2.366558e-04 0.000645425 4.302833e-04
                                                                      0
  CSI065 3.782005e-05 0.000000e+00 0.000000000 0.000000e+00
                                                                      0
  CSI076 0.000000e+00 8.672024e-05 0.000000000 1.734405e-04
                                                                      0
##
              Otu01034 Otu01035
                                     Otu01036
                                                 Otu01037 Otu01038
```

```
## CSI001 0.000000e+00
                             0 0.000000e+00 0.00000e+00
                                                               0
  CSI012 0.000000e+00
                             0 1.724971e-05 0.00000e+00
                                                               0
  CSI022 0.000000e+00
                             0 0.000000e+00 0.00000e+00
                                                               0
  CSI044 0.000000e+00
                             0 0.000000e+00 0.00000e+00
                                                               0
  CSI055 0.000000e+00
                             0 0.000000e+00 0.00000e+00
                                                               0
  CSI065 7.564010e-05
                             0 0.000000e+00 7.56401e-05
                                                               0
##
  CSI076 5.781349e-05
                             0 0.000000e+00 0.00000e+00
                                                               0
##
             Ot:1101039
                          Otu01040
                                       0t.1101041
                                                    Ot:1101042
                                                                0t_{11}01043
  CSI012 0.000000e+00 0.000000e+00 1.724971e-05 0.0001724971 0.00000e+00
  CSI044 0.000000e+00 7.886280e-05 0.000000e+00 0.0002957355 1.97157e-05
  CSI055 0.000000e+00 1.161765e-03 0.000000e+00 0.000000000 0.00000e+00
   CSI065 0.000000e+00 1.512802e-04 0.000000e+00 0.0001891003 0.00000e+00
  CSI076 0.000000e+00 2.890675e-05 0.000000e+00 0.0001445337 0.00000e+00
##
             Otu01044
                          Otu01045 Otu01046 Otu01047 Otu01048
                                                                  Otu01049
  CSI001 2.345326e-05 0.0000000000
                                          0
                                                   0
##
                                                            0 9.381303e-05
  CSI012 4.829918e-04 0.0000000000
                                          0
                                                   0
                                                            0 3.449941e-05
  CSI022 1.936400e-04 0.00000000000
                                          0
                                                   0
                                                            0.000000e+00
  CSI044 0.000000e+00 0.0000000000
                                          0
                                                   0
                                                            0 0.00000e+00
  CSI055 0.000000e+00 0.0000645425
                                          0
                                                   Λ
                                                            0 8.390525e-04
  CSI065 0.000000e+00 0.0000000000
                                          0
                                                   0
                                                            0 0.00000e+00
  CSI076 2.890675e-05 0.0001445337
                                          0
##
                                                   0
                                                            0 6.677459e-03
             Otu01050 Otu01051
                                   Otu01052
                                                Otu01053
                                                             Ot:1101054
## CSI001 7.035977e-05
                             0 0.000000e+00 0.000000000 0.000000e+00
  CSI012 0.000000e+00
                             0 0.000000e+00 0.000000000 0.000000e+00
  CSI022 0.000000e+00
                             0 0.000000e+00 0.000000000 0.000000e+00
  CSI044 0.000000e+00
                             0 0.000000e+00 0.000000000 0.000000e+00
  CSI055 0.000000e+00
                             0 3.011983e-04 0.0001075708 0.000000e+00
  CSI065 0.000000e+00
                             0 0.000000e+00 0.000000000 0.000000e+00
##
  CSI076 0.000000e+00
                             0 2.890675e-05 0.0009828294 8.672024e-05
##
             Otu01055 Otu01056 Otu01057 Otu01058 Otu01059
                                                              0 \pm 1101060
##
  CSI001 9.381303e-05
                             0
                                      0
                                               0
                                                        0 0.00000e+00
                             0
                                      0
                                               0
  CSI012 1.724971e-05
                                                        0 0.00000e+00
  CSI022 1.290933e-04
                             0
                                      0
                                               0
                                                        0 0.00000e+00
  CSI044 0.000000e+00
                             0
                                      0
                                               0
                                                        0 0.00000e+00
  CSI055 0.000000e+00
                             0
                                      0
                                               0
                                                        0 3.377724e-03
  CSI065 0.000000e+00
                             0
                                      0
                                               0
                                                        0 0.00000e+00
  CSI076 0.000000e+00
                             0
                                      0
                                               0
                                                        0 0.000000e+00
             Otu01061 Otu01062 Otu01063 Otu01064
                                                     Otu01065
##
                                                                 Ot:1101066
  CSI001 0.000000e+00
                             0
                                      0
                                               0 0.000000000 0.00000e+00
## CSI012 1.724971e-05
                             0
                                      0
                                               0 0.000000000 0.00000e+00
  CSI022 0.000000e+00
                             0
                                      0
                                               0 0.000000000 0.00000e+00
                             0
                                      0
  CSI044 0.000000e+00
                                               0 0.0000000000 3.94314e-05
                             0
                                      0
  CSI055 0.000000e+00
                                               0 0.000000000 0.00000e+00
  CSI065 0.000000e+00
                             0
                                      0
                                               0 0.000000000 0.00000e+00
##
  CSI076 0.000000e+00
                                      0
                                               0 0.000000000 0.00000e+00
##
          Otu01067 Otu01068
                               Otu01069
                                            Otu01070 Otu01071 Otu01072
## CSI001
                0
                         0 7.270510e-04 0.0000000000
                                                            0
                                                                     0
## CSI012
                0
                         0 2.587456e-04 0.0000000000
                                                            0
                                                                     0
                0
                         0 1.075778e-04 0.0000000000
                                                            0
                                                                     0
## CSI022
## CSI044
                0
                         0 3.943140e-05 0.0000000000
                                                            0
                                                                     0
## CSI055
                0
                         0 2.151417e-05 0.0003872550
                                                            0
                                                                     0
## CSI065
                0
                         0 3.782005e-05 0.0002647404
                                                            0
                                                                     0
```

```
## CSI076
                 0
                           0 0.000000e+00 0.0015031508
                                                                        0
          Otu01073 Otu01074 Otu01075
##
                                          Ot:1101076
                                                       Ot:101077 Ot:101078
## CSI001
                 0
                          0
                                    0 0.0000000000 1.172663e-04
                                                                        0
## CSI012
                           0
                                    0 0.000000000 5.174912e-05
                                                                        0
                 0
## CSI022
                 0
                           0
                                    0 0.000000000 0.000000e+00
                                                                        0
                           0
                                    0 0.0001971570 0.000000e+00
                                                                        0
## CSI044
                 0
                           0
                                    0 0.0002151417 2.796842e-04
## CSI055
                 0
                                                                        0
## CSI065
                 0
                           0
                                    0 0.0003403805 0.000000e+00
                                                                        0
## CSI076
                 0
                           0
                                    0 0.0004625079 0.000000e+00
                                                                        0
                                             Otu01082 Otu01083 Otu01084
##
             Otu01079 Otu01080 Otu01081
## CSI001 0.000000000
                              0
                                       0 0.00000e+00
                                                              0
                                                                       0
## CSI012 0.00000000
                              0
                                                              0
                                                                       0
                                       0 6.899883e-05
  CSI022 0.000000000
                              0
                                       0 1.936400e-04
                                                              0
                                                                       0
                              0
                                       0 0.00000e+00
  CSI044 0.000000000
                                                              0
                                                                       0
  CSI055 0.000000000
                              0
                                                              0
                                       0 0.00000e+00
                                                                       0
  CSI065 0.000000000
                              0
                                       0 0.00000e+00
                                                              0
                                                                       0
                              0
                                       0 0.000000e+00
  CSI076 0.000115627
                                                              0
                                                                       0
                       Otu01086
##
          Otu01085
                                     Otu01087
                                                  Otu01088
                                                                Otu01089
## CST001
                 0 1.172663e-04 0.000000e+00 0.000000e+00 7.035977e-05
## CSI012
                 0 0.000000e+00 0.000000e+00 0.000000e+00 4.139930e-04
##
  CSI022
                 0 0.000000e+00 0.000000e+00 0.000000e+00 6.024356e-04
                 0 0.000000e+00 0.000000e+00 1.971570e-05 1.971570e-05
  CST044
## CSI055
                 0 0.000000e+00 3.227125e-04 2.151417e-05 0.000000e+00
                 0 0.000000e+00 0.000000e+00 1.134602e-04 0.000000e+00
  CSI065
                 0 0.000000e+00 3.179742e-04 1.156270e-03 1.156270e-04
##
  CST076
              Otu01090
                           Otu01091
                                         Otu01092
                                                      Otu01093
  CSI001 0.0000000000 4.690652e-05 0.000000e+00 0.000000e+00 2.345326e-05
##
  CSI012 0.0000000000 1.724971e-05 0.000000e+00 0.000000e+00 0.000000e+00
   CSI022 0.0000000000 1.312449e-03 0.000000e+00 0.000000e+00 8.606222e-05
  CSI044 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 0.0001290850 0.000000e+00 0.000000e+00 0.000000e+00 1.721133e-04
   CSI065 0.0000000000 0.000000e+00 1.172422e-03 0.000000e+00 2.269203e-04
   CSI076 0.0002601607 8.672024e-05 2.890675e-05 2.890675e-05 5.781349e-05
              Otu01095 Otu01096
##
                                     Otu01097
                                                  Otu01098 Otu01099
  CSI001 4.690652e-05
                               0 4.690652e-05 3.987054e-04
                                                                   0
## CSI012 8.624853e-05
                               0 3.449941e-05 2.759953e-04
                                                                   0
## CSI022 0.000000e+00
                               0 0.000000e+00 1.290933e-04
                                                                   0
## CSI044 0.000000e+00
                               0 3.943140e-05 0.000000e+00
                                                                   0
  CSI055 4.302833e-05
                               0 6.023967e-04 1.871733e-03
                                                                   0
                               0 6.051208e-04 0.000000e+00
                                                                   0
  CSI065 1.134602e-04
  CSI076 5.781349e-05
                               0 3.179742e-04 5.492282e-04
                                                                   0
              Otu01100 Otu01101 Otu01102 Otu01103
##
                                                       Otii01104 Otii01105
  CSI001 1.407195e-04
                               0
                                        0
                                                 0 1.477555e-03
                                                                        0
  CSI012 4.829918e-04
                               0
                                        0
                                                 0 5.864900e-04
                                                                        0
## CSI022 6.454667e-05
                               0
                                        0
                                                 0 9.682000e-04
                                                                        0
## CSI044 3.943140e-05
                               0
                                        0
                                                                        0
                                                 0 0.00000e+00
  CSI055 2.581700e-04
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
                               0
                                        0
  CSI065 0.000000e+00
                                                 0 0.00000e+00
                                                                        0
##
  CSI076 1.156270e-04
                               0
                                        0
                                                 0 0.000000e+00
                                                                        0
              Otu01106
                           Otu01107
                                         Otu01108
                                                       Otu01109
                                                                    Otu01110
## CSI001 1.876261e-04 0.000000e+00 2.814391e-04 0.000000e+00 2.345326e-05
## CSI012 0.000000e+00 0.000000e+00 8.624853e-04 0.000000e+00 1.552474e-04
## CSI022 4.087956e-04 0.000000e+00 4.303111e-05 0.000000e+00 2.151556e-04
## CSI044 2.168727e-04 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
```

```
## CSI055 8.605667e-05 2.151417e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065 6.051208e-04 0.000000e+00 0.000000e+00 1.134602e-04 0.000000e+00
   CSI076 5.781349e-05 0.000000e+00 0.000000e+00 1.734405e-04 0.000000e+00
##
          Otu01111
                       Otu01112 Otu01113 Otu01114
                                                        Otu01115 Otu01116
##
  CST001
                 0 2.345326e-05
                                        0
                                                  0 6.801445e-04
                                                                         0
##
  CSI012
                                        0
                                                                        0
                 0 0.00000e+00
                                                  0 1.552474e-04
                                        0
  CSI022
                 0 0.00000e+00
                                                  0 2.151556e-05
                                                                         0
                                                  0 0.000000e+00
## CSI044
                 0 0.00000e+00
                                        0
                                                                         0
  CSI055
                 0 1.505992e-04
                                        0
                                                  0 2.151417e-05
                                                                         0
                 0 1.891003e-04
                                        0
                                                                         0
  CSI065
                                                  0 2.269203e-04
  CSI076
                 0 1.734405e-04
                                        0
                                                  0 2.890675e-05
                                                                         0
##
              Otu01117
                            Otu01118 Otu01119 Otu01120 Otu01121 Otu01122
##
  CSI001 1.876261e-04 3.752521e-04
                                            0
                                                      0
                                                               0
                                                                         0
                                            0
                                                               0
  CSI012 1.379977e-04 1.224729e-03
                                                      0
                                                                         0
  CSI022 1.506089e-04 1.936400e-04
                                            0
                                                               0
                                                                         0
                                                      0
   CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                         0
   CSI055 0.000000e+00 8.605667e-05
                                            0
                                                               0
                                                      0
                                                                         0
   CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                         0
  CSI076 2.890675e-05 0.000000e+00
                                                               0
##
                                            0
                                                      0
                                                                        0
          Otu01123 Otu01124
                                 Otu01125
                                              Otu01126
                                                            Otu01127
## CSI001
                 Ω
                           0 1.407195e-04 9.381303e-05 9.381303e-05
## CSI012
                 0
                           0 3.277444e-04 0.000000e+00 5.519906e-04
## CSI022
                 0
                           0 2.151556e-05 0.000000e+00 1.075778e-04
                 0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044
                           0 0.000000e+00 4.302833e-04 0.000000e+00
                 0
## CST055
  CSI065
                 0
                           0 0.000000e+00 3.782005e-05 0.000000e+00
  CSI076
                           0 0.000000e+00 2.601607e-04 0.000000e+00
##
                 0
              Otu01128
                            Otu01129 Otu01130
                                                   Otu01131
                                                                Otu01132
  CSI001 0.000000e+00 0.000000e+00
                                            0 4.690652e-05 0.0001407195
  CSI012 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.0003277444
  CSI022 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.0001936400
  CSI044 7.886280e-05 0.000000e+00
                                            0 0.000000e+00 0.000000000
   CSI055 0.000000e+00 0.000000e+00
                                            0 4.302833e-05 0.0000000000
  CSI065 2.647404e-04 0.000000e+00
                                            0 0.000000e+00 0.000000000
   CSI076 1.156270e-04 2.890675e-05
                                            0 8.672024e-05 0.0000000000
              Otu01133 Otu01134
                                     Otu01135
##
                                                  Otu01136
                                                                Ot:1101137
## CSI001 5.394249e-04
                               0 2.345326e-05 2.814391e-04 0.000000e+00
## CSI012 4.139930e-04
                               0 0.000000e+00 1.207479e-04 0.000000e+00
## CSI022 1.721244e-04
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 1.290850e-04
                               0 0.000000e+00 0.000000e+00 4.302833e-05
  CSI065 0.000000e+00
                               0 0.000000e+00 3.403805e-04 4.538406e-04
  CSI076 0.000000e+00
                               0 0.000000e+00 5.781349e-05 1.792218e-03
##
          Otu01138 Otu01139
                                             Otu01141
                                                           Otu01142 Otu01143
                                 Otu01140
## CSI001
                 0
                           0 2.345326e-04 0.00000e+00 0.000000e+00
                                                                            0
## CSI012
                 0
                           0 0.000000e+00 0.00000e+00 5.519906e-04
                                                                            0
## CSI022
                 0
                           0 0.000000e+00 0.00000e+00 1.506089e-04
                                                                            0
                 0
                                                                            0
## CSI044
                           0 0.000000e+00 0.00000e+00 0.000000e+00
## CSI055
                 0
                           0 9.035950e-04 6.45425e-05 4.302833e-05
                                                                            0
  CSI065
                 0
                           0 0.000000e+00 0.00000e+00 0.000000e+00
                                                                            0
##
                           0 2.890675e-05 0.00000e+00 0.000000e+00
                                                                            0
##
  CST076
                 0
##
              Otu01144
                            Otu01145 Otu01146 Otu01147
                                                            Otu01148 Otu01149
## CSI001 1.407195e-04 4.690652e-05
                                            0
                                                      0 0.000000e+00
                                                                             0
## CSI012 5.174912e-05 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                                                             0
```

```
## CSI022 2.151556e-05 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI055 0.000000e+00 3.227125e-04
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI065 0.000000e+00 1.134602e-04
                                              0
                                                       0 0.00000e+00
                                                                               0
##
   CSI076 0.000000e+00 8.672024e-05
                                              0
                                                       0 5.781349e-05
                                                                               0
          Otu01150 Otu01151 Otu01152 Otu01153 Otu01154
                                                               Otu01155 Otu01156
##
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0 7.035977e-05
                                                                                0
## CSI012
                                                         0 0.000000e+00
                  0
                            0
                                     0
                                               0
                                                                                0
   CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                O
                            0
                                               0
                                                                                0
##
   CSI044
                  0
                                     0
                                                         0 0.00000e+00
   CSI055
                  0
                            0
                                     0
                                               0
                                                         0 4.302833e-05
                                                                                0
                  0
                            0
                                     0
                                               0
                                                                                0
##
   CSI065
                                                         0 0.00000e+00
##
   CSI076
                  0
                            0
                                     0
                                               0
                                                          1.156270e-04
                                                                                0
                            Otu01158 Otu01159 Otu01160
##
               Otu01157
                                                              Otu01161
   CSI001 0.000000e+00 2.345326e-05
                                              0
                                                       0 1.031943e-03
##
   CSI012 0.000000e+00 1.724971e-05
                                              0
                                                       0 0.00000e+00
                                              0
   CSI022 4.303111e-05 0.000000e+00
                                                       0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0 8.605667e-05
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                       0 8.672024e-05
                            Otu01163 Otu01164
                                                Otu01165 Otu01166 Otu01167
##
               Ot:1101162
  CSI001 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
##
   CSI012 1.724971e-05 1.776720e-03
                                              0
                                                                 0
                                                       0
                                                                           0
                                              0
                                                                 0
                                                                           0
   CSI022 0.000000e+00 9.897156e-04
                                                       0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                       0
                                                                           0
                                              0
                                                                 0
   CSI076 0.000000e+00 0.000000e+00
                                                       Λ
                                                                           0
##
##
          Otu01168 Otu01169
                                  Otu01170 Otu01171
                                                          0tu01172
                                                                        Otu01173
## CSI001
                  0
                            0 1.876261e-04
                                                   0 2.345326e-05 0.000000e+00
##
   CSI012
                  0
                            0 2.069965e-04
                                                   0 0.000000e+00 0.000000e+00
   CSI022
                  0
                            0 6.454667e-05
                                                   0 0.000000e+00 4.303111e-05
                  0
##
  CSI044
                            0
                             0.000000e+00
                                                     0.000000e+00 0.000000e+00
   CSI055
                  0
                              0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
                             0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
  CST065
                  0
                            0
##
   CSI076
                  0
                            0
                              0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
          Otu01174 Otu01175
                                  Otu01176 Otu01177
                                                     Otu01178 Otu01179 Otu01180
## CSI001
                  0
                            0 9.615836e-04
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                                                0
  CSI012
                  Λ
                                                   0
                                                             0
                                                                      0
##
                            0 2.932450e-04
                                                   0
                                                             0
                                                                                0
  CSI022
                  0
                            0 2.581867e-04
                                                                      0
  CSI044
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
                                                   0
##
   CSI055
                  0
                            0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
                  0
                                                   0
                                                             0
                                                                                0
##
   CSI065
                            0 0.00000e+00
                                                                      Λ
                                                   0
##
   CSI076
                            0 0.00000e+00
                                                             0
                                                                                0
                                      Otu01183 Otu01184
##
          Otu01181
                        Otu01182
                                                              Otu01185
##
  CSI001
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
   CSI012
##
                    0.000000e+00 0.000000e+00
                                                       0 6.382391e-04
   CSI022
                  0 0.000000e+00 2.366711e-04
                                                       0 6.454667e-05
##
   CSI044
                    0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
                  0 0.000000e+00 3.011983e-04
##
   CSI055
                                                       0.0.000000e+00
##
  CSI065
                  0 0.000000e+00 1.815363e-03
                                                       0 0.00000e+00
##
  CSI076
                  0 0.000000e+00 1.734405e-04
                                                       0 0.00000e+00
##
               Otu01186 Otu01187
                                     Otu01188 Otu01189
                                                             Otu01190
```

```
## CSI001 0.0000000000
                               0 0.00000000
                                                     0 5.628782e-04
  CSI012 0.0001379977
                               0 0.00000000
                                                     0 5.174912e-05
                                                     0 0.00000e+00
   CSI022 0.0000000000
                               0 0.00000000
   CSI044 0.0000000000
                               0 0.00000000
                                                     0 0.00000e+00
   CSI055 0.0012908500
                               0 0.00000000
                                                       0.000000e+00
##
   CSI065 0.0000000000
                               0 0.001021141
                                                     0 0.00000e+00
   CSI076 0.0004046945
                               0 0.00000000
                                                     0 5.781349e-05
##
              Ot:1101191
                            Otu01192 Otu01193
                                                   Ot:1101194
                                                                 Ot:1101195
   CSI001 6.332380e-04 5.863314e-04
                                             0 0.000000e+00 2.345326e-05
   CSI012 1.190230e-03 5.519906e-04
                                             0 0.000000e+00 3.449941e-05
   CSI022 4.303111e-05 7.960756e-04
                                             0 0.000000e+00 2.151556e-05
                                             0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
   CSI055 6.454250e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI076 2.890675e-05 0.000000e+00
                                             0 8.382957e-03 0.000000e+00
##
              Otu01196 Otu01197 Otu01198
                                               Otu01199 Otu01200
                                                                      Otu01201
   CSI001 4.690652e-05
                                                                0 0.0000000000
##
                               0
                                         0 4.690652e-05
   CSI012 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
   CSI022 0.000000e+00
                                         0 4.303111e-05
                               0
                                                                0 0.000000000
  CSI044 1.971570e-05
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
   CSI055 0.000000e+00
                               0
                                         0 2.151417e-05
                                                                0 0.0004948258
   CSI065 0.000000e+00
                               0
                                          7.564010e-05
                                                                0 0.000000000
  CSI076 0.000000e+00
##
                               0
                                         0 8.672024e-05
                                                                0 0.000000000
##
          Otu01202
                        Otu01203 Otu01204 Otu01205 Otu01206
                                                                  Otu01207
## CSI001
                 0 1.102303e-03
                                         0
                                                  0
                                                           0 0.00000e+00
  CSI012
                 0 5.347409e-04
                                         0
                                                  0
                                                            0 3.449941e-05
## CSI022
                 0 3.012178e-04
                                         0
                                                  0
                                                            0 0.00000e+00
                                         0
##
   CSI044
                 0 0.00000e+00
                                                  0
                                                           0 0.00000e+00
                                         0
                                                  0
                                                            0 1.097223e-03
##
   CSI055
                  0 2.151417e-05
  CSI065
                 0 0.00000e+00
                                         0
                                                  0
                                                            0 3.025604e-04
##
   CSI076
                 0 0.00000e+00
                                         0
                                                  0
                                                            0 4.914147e-04
##
          Otu01208 Otu01209
                                 Otu01210 Otu01211
                                                        Otu01212
                                                                      0 \pm 1101213
## CSI001
                 0
                           0 0.00000e+00
                                                  0 1.172663e-04 0.000000e+00
  CSI012
##
                 0
                           0 0.00000e+00
                                                  0 0.000000e+00 0.000000e+00
   CSI022
                 0
                           0 0.00000e+00
                                                    0.000000e+00 0.000000e+00
                 0
                                                    0.000000e+00 0.000000e+00
##
  CST044
                           0 0.000000e+00
##
  CSI055
                 0
                           0 2.151417e-05
                                                    2.151417e-05 0.000000e+00
## CSI065
                 0
                           0 1.285882e-03
                                                  0 0.000000e+00 0.000000e+00
                           0 3.468810e-04
                                                    1.445337e-04 0.000000e+00
##
   CST076
                 0
##
              Otu01214 Otu01215 Otu01216 Otu01217
                                                        Otu01218 Otu01219
  CSI001 2.345326e-05
                               0
                                         0
                                                  0 4.690652e-04
                                                                         0
  CSI012 0.000000e+00
                               0
                                         0
                                                  0 2.242462e-04
                                                                         0
   CSI022 0.000000e+00
                               0
                                         0
                                                  0 4.303111e-05
                                                                         0
                               0
                                         0
                                                                         Λ
   CSI044 0.000000e+00
                                                  0 0.00000e+00
   CSI055 1.527506e-03
                               0
                                         0
                                                  0 0.00000e+00
                                                                         0
   CSI065 1.891003e-04
                                         0
                                                                         0
                               0
                                                  0 0.00000e+00
##
   CSI076 6.648552e-04
                               0
                                         0
                                                  0 2.890675e-05
                                                                         0
##
          Otu01220 Otu01221 Otu01222 Otu01223
                                                    Otu01224 Otu01225 Otu01226
## CSI001
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
                                                                              0
## CSI012
                 0
                           0
                                    0
                                              0 6.002898e-03
                                                                     0
                                                                               0
                 0
                           0
                                    0
                                                                     0
                                                                               0
##
  CSI022
                                              0 0.00000e+00
## CSI044
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI055
                 0
                           0
                                    0
                                              0 2.151417e-05
                                                                     0
                                                                              0
## CSI065
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                               0
```

```
0 0 5.781349e-05
## CSI076
                          0
                                                                    0
##
              Otu01227 Otu01228
                                     Ot:1101229
                                                  Otu01230 Otu01231 Otu01232
## CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
## CSI012 1.724971e-05
                               0 3.449941e-05 0.000000e+00
                                                                   Λ
                                                                             0
## CSI022 6.454667e-05
                               0 1.075778e-04 0.000000e+00
                                                                   0
                                                                             0
## CSI044 0.00000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   Λ
                                                                             0
## CSI055 0.000000e+00
                               0 2.151417e-05 0.000000e+00
                                                                   0
                                                                             0
## CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
  CSI076 0.000000e+00
                               0 0.000000e+00 2.890675e-05
                                                                   0
                                                                             0
                       Otu01234
                                     Otu01235 Otu01236
##
          Otu01233
                                                            Otu01237
## CSI001
                 0 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
## CSI012
                 0 0.000000e+00 0.000000e+00
                                                      0 1.552474e-04
## CSI022
                 0 0.000000e+00 0.000000e+00
                                                     0 0.000000e+00
## CSI044
                 0 0.000000e+00 1.971570e-05
                                                     0 0.000000e+00
## CSI055
                 0 0.000000e+00 1.333878e-03
                                                     0 5.378542e-04
## CSI065
                 0 0.000000e+00 3.782005e-05
                                                     0 1.891003e-04
  CSI076
                 0 2.890675e-04 1.127363e-03
##
                                                      0 2 890675e-05
##
              Otu01238
                            Otu01239
                                         Otu01240 Otu01241
                                                                Otu01242
## CSI001 0.000000e+00 2.110793e-04 2.345326e-05
                                                          0 1.172663e-04
## CSI012 0.000000e+00 0.000000e+00 5.174912e-05
                                                          0 1.724971e-04
## CSI022 0.000000e+00 8.606222e-05 0.000000e+00
                                                          0 1.075778e-04
## CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
## CSI055 0.000000e+00 0.000000e+00 2.151417e-05
                                                          0 0.00000e+00
  CSI065 3.782005e-05 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
  CSI076 0.000000e+00 0.000000e+00 1.734405e-04
                                                          0 0.000000e+00
          Otu01243 Otu01244 Otu01245
                                          0tu01246
                                                       Otu01247
                                                                     0 \pm 1101248
## CSI001
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 9.381303e-05
## CSI012
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 1.034982e-04
## CSI022
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 2.581867e-04
## CSI044
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI055
                 0
                           0
                                    0 2.151417e-04 2.151417e-05 0.000000e+00
## CSI065
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI076
                 0
                           0
                                    0 3.179742e-04 0.000000e+00 0.000000e+00
                            Otu01250
                                         Otu01251 Otu01252 Otu01253 Otu01254
##
              Otu01249
## CSI001 1.383742e-03 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
                                                                             0
  CSI012 8.624853e-04 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
                                                                             0
  CSI022 1.721244e-04 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
                                                                             0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          Λ
                                                                   0
                                                                             0
  CSI055 0.000000e+00 1.936275e-04 0.000000e+00
                                                          0
                                                                   0
  CSI065 0.000000e+00 1.512802e-04 0.000000e+00
                                                          0
                                                                   0
                                                                             0
   CSI076 0.000000e+00 2.023472e-04 0.000000e+00
##
          Otu01255 Otu01256 Otu01257 Otu01258 Otu01259 Otu01260
                                                                      Ot:1101261
                                                                0 0.0000000000
## CSI001
                 0
                           0
                                    0
                                             0
                                                       0
                           0
                                    0
                                             0
                                                       0
## CSI012
                 0
                                                                0 0.000000000
## CSI022
                 0
                           0
                                    0
                                             0
                                                       0
                                                                0 0.000000000
                                                       0
## CSI044
                 0
                           0
                                    0
                                             0
                                                                0 0.0000000000
## CSI055
                 0
                           0
                                    0
                                             0
                                                       0
                                                                0 0.0002366558
                 0
                           0
                                    0
                                             0
                                                       0
## CSI065
                                                                0 0.000000000
##
  CSI076
                 0
                           0
                                    0
                                             0
                                                       0
                                                                0 0.0028039544
##
          Otu01262 Otu01263
                                 Otu01264 Otu01265 Otu01266
                                                                 Otu01267
## CSI001
                 0
                           0 0.000000e+00
                                                 0
                                                           0 0.000000e+00
                                                 0
## CSI012
                 0
                           0 1.724971e-05
                                                           0 0.00000e+00
## CSI022
                 0
                          0 0.000000e+00
                                                 0
                                                           0 0.00000e+00
## CSI044
                 0
                          0 0.000000e+00
                                                 0
                                                           0 0.000000e+00
```

```
## CSI055
                 0
                           0 0.00000e+00
                                                  0
                                                           0 2.151417e-05
                                                           0 0.000000e+00
## CSI065
                           0 0.000000e+00
                                                  0
                 0
##
  CSI076
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.00000e+00
##
              Otu01268 Otu01269
                                     Otu01270 Otu01271 Otu01272 Otu01273
  CSI001 0.0000000000
                               0 1.876261e-04
                                                      0
                                                               0
                                                                         0
  CSI012 0.0000000000
                                                      0
                                                               0
                                                                         0
                               0 1.379977e-04
                                                               0
  CSI022 0.0000000000
                               0 1.290933e-04
                                                      0
                                                                         0
## CSI044 0.0007491966
                               0 0.00000e+00
                                                      0
                                                               0
                                                                         0
  CSI055 0.0000000000
                               0 2.796842e-04
                                                      0
                                                               0
                                                                         0
                                                      0
                                                               0
                                                                         0
   CSI065 0.0046140464
                               0 3.782005e-05
   CSI076 0.0000000000
                               0 4.914147e-04
                                                      0
                                                               0
                                                                         0
                                               Otu01277
##
              Otu01274 Otu01275 Otu01276
                                                            Otu01278
##
  CSI001 9.381303e-05
                               0
                                        0 0.000000e+00 0.000000e+00
                               0
                                        0 0.000000e+00 1.724971e-05
  CSI012 5.519906e-04
  CSI022 5.378889e-04
                               0
                                        0 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                               0
                                        0 6.454250e-05 4.302833e-05
  CSI055 0.000000e+00
   CSI065 0.000000e+00
                               0
                                        0 1.512802e-04 0.000000e+00
  CSI076 0.000000e+00
                                        0 8.672024e-05 1.300804e-03
##
                               0
##
              Otu01279
                            Otu01280
                                         Otu01281
                                                       Otu01282
                                                                    Otu01283
  CSI001 4.690652e-04 2.345326e-05 0.000000e+00 0.000000e+00 3.987054e-04
  CSI012 5.519906e-04 0.000000e+00 0.000000e+00 0.000000e+00 2.414959e-04
  CSI022 8.606222e-05 0.000000e+00 0.000000e+00 0.000000e+00 2.366711e-04
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 9.857850e-05 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00 2.366558e-04 2.151417e-05 6.454250e-05
   CSI065 0.000000e+00 0.000000e+00 1.285882e-03 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00 2.023472e-04 2.601607e-04 0.000000e+00
##
          Otu01284 Otu01285
                                 Otu01286
                                              Otu01287 Otu01288
                                                                     Otu01289
  CSI001
                 0
                           0 4.690652e-05 0.0010084901
                                                               0 2.345326e-05
##
## CSI012
                 0
                           0 0.000000e+00 0.0006727386
                                                               0 1.000483e-03
## CSI022
                 0
                           0 0.000000e+00 0.0000000000
                                                               0 4.303111e-05
  CSI044
                 0
                           0 0.000000e+00 0.0000000000
                                                               0 0.000000e+00
##
  CSI055
                 0
                           0 1.075708e-04 0.0000000000
                                                               0 0.00000e+00
                            0.000000e+00 0.0000000000
##
  CSI065
                 0
                                                               0 0.00000e+00
                 0
                             1.734405e-04 0.0000000000
                                                               0
                                                                 0.000000e+00
##
   CSI076
                           0
                                 Otu01292
          Otu01290 Otu01291
                                              Otu01293 Otu01294
##
                                                                     Ot:1101295
## CSI001
                 0
                           0 3.752521e-04 0.000000e+00
                                                               0 0.00000e+00
## CSI012
                 0
                           0 0.000000e+00 1.724971e-05
                                                               0 3.449941e-05
## CSI022
                 0
                            0.000000e+00 0.000000e+00
                                                               0 0.000000e+00
                           0 0.000000e+00 0.000000e+00
                 0
  CST044
                                                               0.000000e+00
##
  CSI055
                 0
                           0 6.454250e-05 6.454250e-05
                                                               0 0.000000e+00
  CSI065
                 0
                           0 4.916607e-04 0.000000e+00
                                                               0 0.000000e+00
##
##
   CST076
                 \cap
                           0 1.734405e-04 5.203214e-04
                                                               0 1.445337e-04
##
              Otu01296 Otu01297
                                     Otu01298
                                                   Otu01299
                                                                Otu01300
  CSI001 4.690652e-05
                               0 1.031943e-03 0.000000e+00 9.381303e-05
  CSI012 0.000000e+00
                               0 2.932450e-04 0.000000e+00 3.449941e-05
  CSI022 0.000000e+00
                               0 1.075778e-04 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 3.872550e-04
                               0 0.000000e+00 4.302833e-05 3.442267e-04
  CSI065 3.782005e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 0.000000e+00 3.468810e-04
##
  CSI076 6.359484e-04
##
              Otu01301 Otu01302 Otu01303
                                               Otu01304
                                                            Otu01305
## CSI001 0.000000e+00
                               0
                                        0 0.000000e+00 1.172663e-04
## CSI012 1.724971e-05
                               0
                                        0 0.000000e+00 7.072380e-04
```

```
## CSI022 0.000000e+00
                              0
                                       0 0.000000e+00 1.678213e-03
  CSI044 0.000000e+00
                              0
                                       0 0.000000e+00 0.000000e+00
  CSI055 5.808825e-04
                              0
                                       0 1.828704e-03 0.000000e+00
  CSI065 0.000000e+00
                              0
                                       0 3.782005e-05 0.000000e+00
##
   CSI076 2.023472e-04
                              0
                                       0 9.539226e-04 0.000000e+00
                           Otu01307
                                        Otu01308
                                                     Otu01309
##
              Otu01306
                                                                   Ot:1101310
  CSI001 0.000000e+00 4.925184e-04 0.000000000 0.00000e+00 0.000000000
  CSI012 3.622438e-04 3.449941e-05 0.0002759953 0.000000e+00 0.000000000
   CSI022 0.000000e+00 2.151556e-05 0.0006024356 0.000000e+00 0.0000000000
   CSI055 0.000000e+00 4.302833e-05 0.0000000000 8.605667e-05 0.0003872550
   CSI065 0.000000e+00 0.000000e+00 0.0000000000 0.000000e+00 0.0001891003
   CSI076 0.000000e+00 2.890675e-05 0.0000000000 2.890675e-05 0.0004336012
                                                Otu01314 Otu01315 Otu01316
##
             Otu01311
                          Otu01312 Otu01313
  CSI001 0.00000e+00 9.381303e-05
                                          0 0.000000000
                                                                 0
                                                                          0
   CSI012 0.00000e+00 3.449941e-05
                                          0 0.000000000
                                                                 0
                                                                          0
   CSI022 0.00000e+00 0.000000e+00
                                                                 0
                                                                          0
                                          0 0.000000000
   CSI044 1.97157e-05 0.000000e+00
                                          0 0.000000000
                                                                 0
                                                                          0
  CSI055 0.00000e+00 1.290850e-04
                                                                 0
                                                                          0
                                          0 0.000000000
   CSI065 0.00000e+00 0.000000e+00
                                          0 0.000000000
                                                                 0
                                                                          0
##
  CSI076 0.00000e+00 0.000000e+00
                                          0.000000000
                                                                 0
                                                                          0
                                                           Otu01321 Otu01322
##
              Ot:1101317
                           Otii01318 Otii01319 Otii01320
  CSI001 0.000000e+00 1.970074e-03
                                           0
                                                    0 0.0002110793
                                                                           0
   CSI012 6.899883e-05 1.724971e-05
                                           0
                                                    0 0.0001379977
                                                                           0
                                           0
  CSI022 4.303111e-05 4.303111e-05
                                                    0 0.000000000
                                                                           0
   CSI044 0.000000e+00 0.000000e+00
                                           0
                                                    0 0.000000000
                                                                           0
  CSI055 0.000000e+00 0.000000e+00
                                           0
                                                    0 0.000000000
                                                                           0
   CSI065 0.000000e+00 0.000000e+00
                                            0
                                                    0 0.000000000
                                                                           0
   CSI076 0.000000e+00 0.000000e+00
                                           0
                                                                           0
##
                                                    0 0.0001445337
##
          Otu01323 Otu01324 Otu01325
                                         Otu01326
                                                       Otu01327
                                                                    Otu01328
## CSI001
                 0
                          0
                                   0 0.000000e+00 4.409212e-03 0.000000e+00
##
  CSI012
                 0
                          0
                                   0 0.000000e+00 6.899883e-05 3.449941e-05
  CSI022
                 0
                          0
                                   0 0.000000e+00 0.000000e+00 0.000000e+00
                 0
                          0
                                     0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
##
  CSI055
                 0
                          0
                                     2.151417e-05 0.000000e+00 0.000000e+00
                 0
                          0
                                     3.782005e-05 0.000000e+00 3.782005e-05
##
  CST065
##
  CSI076
                 0
                          0
                                   0 0.000000e+00 0.000000e+00 1.445337e-04
##
          Otu01329
                       Otu01330 Otu01331
                                             Otu01332 Otu01333 Otu01334
## CSI001
                 0 0.000000e+00
                                       0 0.00000e+00
                                                              0
                                                                       0
                                       0 0.000000e+00
                                                              0
                                                                       0
##
  CST012
                 0 0.000000e+00
                                                              0
                                                                       0
  CSI022
                 0 0.00000e+00
                                       0 0.00000e+00
  CSI044
                 0 0.00000e+00
                                       0 0.00000e+00
                                                              0
                                                                       0
##
                                                              0
##
  CSI055
                 0 0.00000e+00
                                       0 4.087692e-04
                                                                       0
                                                              0
                                                                       0
  CSI065
                 0 1.134602e-04
                                       0 0.00000e+00
##
                                                              0
##
  CSI076
                 0 2.890675e-05
                                       0 4.625079e-04
                                                                       0
##
              Otu01335 Otu01336 Otu01337 Otu01338
                                                      Otu01339 Otu01340
  CSI001 0.000000e+00
                              0
                                       0
                                                0 0.00000e+00
                                                                       0
                              0
                                       0
                                                                       0
   CSI012 1.724971e-05
                                                0 0.00000e+00
  CSI022 0.000000e+00
                              0
                                       0
                                                0 0.000000e+00
                                                                       0
  CSI044 0.000000e+00
                              0
                                       0
                                                0 0.00000e+00
                                                                       0
   CSI055 8.605667e-05
                              0
                                       0
                                                                       0
                                                  1.075708e-04
  CSI065 0.000000e+00
                              0
                                       0
                                                0 0.00000e+00
                                                                       0
##
  CSI076 2.890675e-05
                              0
                                       0
                                                0 4.336012e-03
                                                                       0
##
          Otu01341
                       Otu01342 Otu01343
                                             Otu01344
                                                           Otu01345 Otu01346
```

```
## CSI001
                  0 0.000000000
                                         0 0.000000e+00 0.000000e+00
                                                                              0
## CST012
                  0 0.000000000
                                         0 3.449941e-05 0.000000e+00
                                                                              0
                  0 0.000000000
## CSI022
                                         0 1.075778e-04 0.000000e+00
                                                                              0
  CSI044
                  0 0.000000000
                                         0 0.000000e+00 5.914710e-05
                                                                              0
##
  CSI055
                  0 0.0004948258
                                         0 0.000000e+00 0.000000e+00
                  0 0.0001134602
                                         0 0.000000e+00 6.315949e-03
##
  CSI065
                                                                              0
   CSI076
                  0 0.000000000
                                         0 0.000000e+00 5.781349e-05
                                                                              0
##
          Otu01347 Otu01348 Otu01349 Otu01350 Otu01351 Otu01352
                                                                        Ot:1101353
## CSI001
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.000000e+00
                           0
                                     0
                                              0
                                                        0
## CSI012
                  0
                                                                 0 0.00000e+00
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI044
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
##
  CSI055
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 2.151417e-05
                           0
                                              0
                                                                 0 0.00000e+00
## CSI065
                  0
                                     0
                                                        0
  CSI076
                  0
                           0
                                     0
                                              0
                                                        0
##
                                                                 0.2.890675e-05
##
          Otu01354 Otu01355
                             Otu01356 Otu01357
                                                    Otu01358 Otu01359 Otu01360
## CSI001
                                              0 7.739575e-04
                  0
                           0
                                     0
                                                                     0
                                                                               0
  CSI012
                  0
                           0
                                     0
                                              0 1.724971e-04
                                                                      0
                                                                               0
##
## CSI022
                  0
                           0
                                              0 4.948578e-04
                                                                               0
                                     0
                                                                     0
## CSI044
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
##
  CSI055
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               Λ
## CSI065
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
                  0
                           0
                                                                               Λ
## CSI076
                  0
                                     0
                                              0 2.890675e-05
                                                                     0
             Otu01361 Otu01362
                                     Otu01363
                                                  Otu01364
                                                                Ot:1101365
## CSI001 0.000000000
                              0 4.690652e-05 0.000000e+00 5.159717e-04
  CSI012 0.000000000
                              0 1.724971e-04 1.724971e-05 8.624853e-05
  CSI022 0.000000000
                              0 4.303111e-05 0.000000e+00 6.454667e-05
                              0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI044 0.001892707
   CSI055 0.000000000
                              0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI065 0.000000000
                              0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI076 0.000000000
                              0 8.672024e-05 0.000000e+00 0.000000e+00
##
          Otu01366 Otu01367 Otu01368
                                           Otu01369 Otu01370 Otu01371
## CSI001
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
## CSI012
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                  0
  CSI022
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
                  0
                           0
                                                            0
## CST044
                                     0 0.00000e+00
                                                                     0
## CSI055
                  0
                           0
                                     0 6.454250e-05
                                                            0
                                                                      0
## CSI065
                  Ω
                           0
                                     0 0.00000e+00
                                                            Λ
                                                                     0
                  0
                                     0 7.226687e-04
                                                            0
                                                                     0
##
  CST076
##
                            Otu01373 Otu01374
              0tu01372
                                                    Otu01375
                                                                 Ot:1101376
  CSI001 2.345326e-05 1.876261e-04
                                             0 2.345326e-05 3.987054e-04
## CSI012 1.724971e-05 4.829918e-04
                                             0 0.000000e+00 1.552474e-04
   CSI022 0.000000e+00 2.151556e-04
                                             0 0.000000e+00 1.075778e-04
                                             0 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 1.971570e-05
   CSI055 4.302833e-05 6.454250e-05
                                             0 1.721133e-04 2.151417e-05
   CSI065 1.134602e-04 7.564010e-05
                                             0 0.000000e+00 0.000000e+00
##
   CSI076 5.781349e-04 0.000000e+00
                                             0 1.445337e-04 0.000000e+00
##
          Otu01377
                        Otu01378 Otu01379 Otu01380
                                                         Otu01381
                                                                       0tu01382
## CSI001
                  0 0.000000e+00
                                         0
                                                  0 0.000000e+00 0.0000000000
## CSI012
                  0 0.00000e+00
                                         0
                                                  0 1.724971e-05 0.0000000000
                                         0
                                                  0 0.000000e+00 0.0000000000
## CSI022
                  0 2.151556e-05
## CSI044
                  0 3.943140e-05
                                         0
                                                  0 0.000000e+00 0.0000000000
## CSI055
                  0.000000e+00
                                         0
                                                  0 0.000000e+00 0.0015705342
## CSI065
                  0 5.862108e-03
                                         0
                                                  0 0.000000e+00 0.0000000000
```

```
## CSI076
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00 0.0000000000
##
              Otu01383 Otu01384
                                                   Otu01386 Otu01387 Otu01388
                                     Ot:1101385
## CSI001 0.000000e+00
                               0 7.035977e-05 0.0004690652
                                                                   0
                                                                             0
  CSI012 0.000000e+00
                               0 8.624853e-05 0.0004139930
                                                                    0
                                                                             0
  CSI022 0.000000e+00
                               0 4.303111e-05 0.0002581867
                                                                    0
                                                                             0
                               0 0.000000e+00 0.0000000000
                                                                    0
## CSI044 0.000000e+00
                                                                             0
  CSI055 2.151417e-05
                               0 6.454250e-05 0.0000000000
                                                                    0
                                                                             0
## CSI065 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                    0
                                                                             0
##
  CSI076 1.156270e-04
                               0 5.781349e-05 0.0000000000
                                                                    0
                                                                             O
##
              Otu01389
                            Otu01390
                                         Otu01391
                                                       Otu01392
                                                                    Otu01393
  CSI001 0.000000e+00 7.035977e-05 2.814391e-04 4.690652e-05 2.579858e-04
  CSI012 1.724971e-05 0.000000e+00 2.069965e-04 1.034982e-04 0.000000e+00
  CSI022 3.227333e-04 0.000000e+00 1.075778e-04 2.151556e-05 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 6.454250e-05
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 3.782005e-05 3.782005e-05
  CSI076 0.000000e+00 1.734405e-04 0.000000e+00 8.672024e-05 0.000000e+00
##
          Otu01394
                       Otu01395
                                     Otu01396
                                                   Otu01397 Otu01398
## CSI001
                 0 0.000000e+00 9.615836e-04 0.000000e+00
                                                                    0
## CSI012
                 0 1.724971e-05 1.207479e-04 0.000000e+00
                                                                    0
##
  CSI022
                 0 0.000000e+00 4.303111e-05 8.606222e-05
                                                                    0
                 0 0.000000e+00 0.000000e+00 0.000000e+00
  CST044
                                                                    0
                 0 0.000000e+00 1.721133e-04 0.000000e+00
## CST055
                                                                    0
                 0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
                                                                    0
                 0 0.000000e+00 2.312540e-04 0.000000e+00
##
  CST076
                                                                    0
##
              Otu01399 Otu01400 Otu01401 Otu01402 Otu01403 Otu01404 Otu01405
  CSI001 4.690652e-05
                               0
                                        0
                                                  0
                                                           0
                                                                    0
##
                                                                              0
                                                           0
                                                                    0
  CSI012 5.174912e-05
                               0
                                        0
                                                  0
                                                                              0
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
  CSI022 6.454667e-05
  CSI044 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
  CSI055 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
   CSI065 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
##
   CSI076 2.890675e-05
                               0
                                        0
                                                  0
                                                           0
                                                                              0
                            Otu01407 Otu01408 Otu01409
##
              Otu01406
                                                            Otu01410
  CSI001 1.876261e-04 6.566912e-04
                                            0
                                                      0 0.00000e+00
  CSI012 8.624853e-05 7.589871e-04
                                            0
                                                      0 0.000000e+00
  CSI022 0.000000e+00 2.151556e-05
                                            0
                                                      0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            Λ
                                                      0 0.00000e+00
   CSI055 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.000000e+00
  CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
##
              Otu01411 Otu01412 Otu01413 Otu01414
                                                        0t:1101415
                                                                      0t.1101416
                                                  0 8.208640e-04 0.000000e+00
  CSI001 0.000000e+00
                               0
                                        0
                                        0
  CSI012 0.000000e+00
                               0
                                                  0 2.069965e-04 0.000000e+00
  CSI022 0.000000e+00
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
                                                  0 0.000000e+00 1.971570e-05
## CSI044 0.000000e+00
                               0
                                        0
  CSI055 2.151417e-05
                               0
                                        0
                                                  0 1.290850e-04 3.227125e-04
                               0
  CSI065 0.000000e+00
                                        0
                                                  0 0.000000e+00 3.101244e-03
##
  CSI076 1.156270e-04
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
          Otu01417 Otu01418
                                 Otu01419
                                              Otu01420
                                                            Otu01421
## CSI001
                 0
                           0 0.000000e+00 9.381303e-05 0.000000e+00
## CSI012
                 0
                           0 0.000000e+00 5.174912e-05 0.000000e+00
## CSI022
                 0
                           0 0.000000e+00 4.303111e-05 0.000000e+00
## CSI044
                 0
                           0 7.886280e-05 0.000000e+00 0.000000e+00
```

```
## CSI055
                 0
                           0 2.151417e-05 4.302833e-05 0.000000e+00
## CST065
                           0 2.647404e-04 0.000000e+00 0.000000e+00
                 0
                           0 2.890675e-05 8.672024e-05 2.890675e-05
## CSI076
                 0
##
                            Otu01423
                                         Otu01424 Otu01425 Otu01426 Otu01427
              Ot:1101422
  CSI001 1.008490e-03 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
  CSI012 2.759953e-04 1.724971e-05 1.724971e-05
                                                          0
                                                                    0
                                                                             0
   CSI022 8.606222e-05 0.000000e+00 6.454667e-05
                                                          0
                                                                    0
                                                                             0
  CSI044 0.000000e+00 0.000000e+00 3.943140e-05
                                                          0
                                                                    0
                                                                             0
   CSI055 0.000000e+00 2.151417e-05 0.000000e+00
                                                          Ω
                                                                    0
                                                                             0
                                                          Λ
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                                             0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                                             0
              Otu01428 Otu01429 Otu01430
##
                                               Otu01431
                                                            Otu01432
##
  CSI001 5.159717e-04
                               0
                                        0 0.000000e+00 0.0000000000
                               0
## CSI012 8.624853e-05
                                        0 0.000000e+00 0.0000000000
## CSI022 6.454667e-05
                               0
                                        0 0.000000e+00 0.0000000000
  CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000000
                               0
   CSI055 0.000000e+00
                                        0 0.000000e+00 0.000000000
   CSI065 3.782005e-05
                               0
                                        0 0.000000e+00 0.0001134602
                                        0 2.890675e-05 0.0005203214
##
   CSI076 2.890675e-05
                               0
##
              Otu01433
                            Otu01434
                                         Otu01435 Otu01436 Otu01437 Otu01438
  CSI001 0.000000e+00 0.000000e+00 0.0017589943
                                                          Λ
                                                                    Λ
                                                                             0
## CSI012 0.000000e+00 0.000000e+00 0.0000000000
                                                                    0
                                                                             0
## CSI022 0.000000e+00 0.000000e+00 0.0000000000
                                                          0
                                                                    0
                                                                             0
   CSI044 1.123795e-03 1.971570e-05 0.0000000000
                                                          0
                                                                    0
                                                                             0
   CSI055 0.000000e+00 4.302833e-04 0.0000000000
                                                          0
                                                                    0
                                                                             0
   CSI065 3.782005e-05 3.782005e-05 0.0000000000
                                                          0
                                                                    0
                                                                             0
   CSI076 0.000000e+00 5.781349e-05 0.0001734405
                                                          0
                                                                    0
                                                                             0
##
          Otu01439 Otu01440
                                 Otu01441 Otu01442 Otu01443 Otu01444
## CSI001
                 0
                                                  0
                                                           0
                           0 7.035977e-05
                                                                     0
## CSI012
                 0
                           0 3.449941e-05
                                                  0
                                                           0
                                                                     0
## CSI022
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
## CST044
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
## CSI055
                 0
                           0 3.442267e-04
                                                  0
                                                           0
                                                                     0
                                                           0
## CSI065
                 0
                           0 3.403805e-04
                                                  0
                                                                     0
                 0
                           0 2.312540e-04
                                                  0
                                                           0
                                                                     0
##
   CSI076
                                               Otu01448 Otu01449 Otu01450
              Otu01445 Otu01446 Otu01447
##
## CSI001 9.381303e-05
                               0
                                        0 0.000000e+00
                                                                0
                                                                         0
## CSI012 1.034982e-04
                               0
                                        0 0.00000e+00
                                                                0
                                                                         Λ
## CSI022 1.075778e-04
                               0
                                                                0
                                                                         0
                                        0.000000e+00
                               0
                                                                0
                                                                         0
## CSI044 0.000000e+00
                                        0.000000e+00
   CSI055 0.000000e+00
                               0
                                                                0
                                        0 0.00000e+00
                                                                         0
## CSI065 0.000000e+00
                               0
                                        0 0.000000e+00
                                                                0
                                                                         0
   CSI076 0.000000e+00
                               0
                                        0 2.890675e-05
                                                                0
                                                                         0
                        Otu01452
##
          Otu01451
                                     Otu01453 Otu01454 Otu01455
                                                                      Otu01456
## CSI001
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.000000000
## CSI012
                 0 0.000000e+00 2.242462e-04
                                                      0
                                                                0 0.000000000
## CSI022
                 0 0.000000e+00 2.151556e-05
                                                      0
                                                                0 0.000000000
## CSI044
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.000000000
  CSI055
                 0 2.151417e-05 0.000000e+00
                                                      0
                                                                0 0.0039801209
##
  CSI065
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.000000000
                 0 0.000000e+00 2.890675e-05
                                                                0 0.0002023472
##
   CST076
##
          Otu01457 Otu01458 Otu01459
                                          Otu01460
                                                        Otu01461
                                                                      0tu01462
## CSI001
                 0
                           0
                                    0 1.172663e-04 4.690652e-05 0.000000e+00
## CSI012
                 0
                           0
                                    0 3.449941e-05 1.034982e-04 0.000000e+00
```

```
## CSI022
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
                 0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST044
  CSI055
                 0
                           0
                                    0 4.302833e-05 0.000000e+00 1.290850e-04
  CSI065
                 0
                           0
                                    0 3.782005e-05 0.000000e+00 5.673008e-04
##
##
   CST076
                 0
                           0
                                    0 6.648552e-04 0.000000e+00 2.890675e-05
                                                   Otu01466 Otu01467 Otu01468
##
          0tu01463
                        Otu01464
                                     Ot:1101465
                 0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI001
                                                                   0
                                                                             0
## CSI012
                 0 5.347409e-04 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
  CSI022
                 0 1.506089e-04 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                                                                   0
##
  CSI044
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                             0
   CSI055
                 0 2.151417e-05 0.000000e+00 5.808825e-04
                                                                   0
                                                                             0
                 0 0.000000e+00 3.782005e-05 0.000000e+00
                                                                   0
##
   CSI065
                                                                             0
##
   CSI076
                 0 0.000000e+00 0.000000e+00 6.070417e-04
                                                                   0
                                                                             0
##
              Otu01469
                            Otu01470 Otu01471
                                                   Otu01472 Otu01473
  CSI001 4.690652e-05 0.000000e+00
                                            0.000000000
##
                                                                   0
   CSI012 3.449941e-05 0.000000e+00
                                            0 0.000000000
                                                                   0
                                                                   0
   CSI022 4.303111e-05 4.303111e-05
                                            0 0.000000000
   CSI044 1.971570e-05 0.000000e+00
                                            0 0.0000394314
                                                                   0
  CSI055 6.454250e-05 0.000000e+00
                                                                   0
                                            0 0.0001505992
   CSI065 3.782005e-05 0.000000e+00
                                            0 0.0005294807
                                                                   0
##
  CSI076 2.890675e-05 0.000000e+00
                                            0 0.000000000
                                                                   0
                            Otu01475 Otu01476 Otu01477 Otu01478 Otu01479
##
              Ot:1101474
  CSI001 0.000000e+00 2.345326e-05
                                            0
                                                               0
                                                                         0
##
                                                      0
   CSI012 0.000000e+00 0.000000e+00
                                            0
                                                               0
                                                      0
                                                                         0
                                                                         0
  CSI022 0.000000e+00 2.151556e-05
                                            0
                                                      0
                                                               0
  CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                         0
  CSI055 1.505992e-03 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                         0
                                             0
                                                               0
   CSI065 0.000000e+00 0.000000e+00
                                                      0
                                                                         0
                                            0
                                                               0
   CSI076 4.625079e-04 0.000000e+00
                                                      Λ
                                                                         0
##
##
          Otu01480
                       Otu01481 Otu01482 Otu01483
                                                        Otu01484
                                                                      Otu01485
## CSI001
                 0 2.345326e-05
                                        0
                                                  0 0.000000000 7.035977e-05
##
  CSI012
                 0 0.000000e+00
                                        0
                                                  0 0.000000000 0.000000e+00
  CSI022
                 0 4.303111e-05
                                        0
                                                  0 0.000000000 0.000000e+00
  CSI044
                                        0
                 0 0.00000e+00
                                                  0 0.000000000 0.000000e+00
##
   CSI055
                 0 0.00000e+00
                                        0
                                                   0.000000000 0.000000e+00
                                                  0 0.0001134602 0.000000e+00
                                        0
##
  CST065
                 0.000000e+00
##
  CSI076
                 0 0.000000e+00
                                        0
                                                  0 0.000000000 0.000000e+00
##
              Otu01486 Otu01487
                                     Otu01488
                                                   Otu01489
                                                                0 \pm 1101490
  CSI001 0.0000000000
                               0 0.000000e+00 0.000000000 0.000000e+00
  CSI012 0.0000000000
                               0 1.724971e-05 0.0000000000 0.000000e+00
  CSI022 0.0000000000
                               0 8.606222e-05 0.0000000000 0.000000e+00
  CSI044 0.0000000000
                               0 0.000000e+00 0.0000000000 3.943140e-04
  CSI055 0.0001505992
                               0 0.000000e+00 0.0002366558 8.605667e-05
  CSI065 0.0000000000
                               0 0.000000e+00 0.000000000 0.000000e+00
   CSI076 0.0000000000
                               0 1.156270e-04 0.0001734405 0.000000e+00
##
              Otu01491 Otu01492
                                     Otu01493
                                                   Otu01494
                                                               Otu01495
  CSI001 2.345326e-05
                               0 0.000000000 0.000000000 0.00000e+00
   CSI012 0.000000e+00
                               0 0.000000000 0.000000000 0.00000e+00
  CSI022 0.000000e+00
                               0 0.000000000 0.000000000 0.00000e+00
  CSI044 0.000000e+00
                               0 0.000000000 0.000000000 3.94314e-05
                               0 0.000000000 0.000000000 0.00000e+00
  CSI055 1.075708e-04
  CSI065 0.000000e+00
                               0 0.0001134602 0.0000000000 0.00000e+00
##
  CSI076 2.890675e-05
                               0 0.000000000 0.0001734405 0.00000e+00
##
              Otu01496
                            Otu01497 Otu01498
                                                   Otu01499 Otu01500
```

```
## CSI001 3.752521e-04 7.035977e-05
                                            0 2.814391e-04
                                                                   0
## CSI012 5.174912e-05 0.000000e+00
                                            0 2.984199e-03
                                                                   0
  CSI022 4.303111e-05 4.518267e-04
                                            0 4.303111e-05
                                                                   0
  CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                   0
  CSI055 0.000000e+00 2.151417e-05
                                            0 0.000000e+00
                                                                   0
  CSI065 0.000000e+00 3.782005e-05
                                                                   0
                                            0 0.00000e+00
   CSI076 1.445337e-04 0.000000e+00
                                            0 0.00000e+00
                                                                   0
##
              Ot:1101501
                           Ot:1101502
                                         Otu01503
                                                      Otu01504
                                                                    Ot:1101505
  CSI001 7.035977e-05 0.000000e+00 0.000000e+00 1.641728e-04 9.381303e-05
  CSI012 0.000000e+00 1.724971e-05 0.000000e+00 1.552474e-04 2.759953e-04
  CSI022 0.000000e+00 0.000000e+00 0.000000e+00 1.075778e-04 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 5.781349e-05 2.312540e-04 0.000000e+00 0.000000e+00 0.000000e+00
##
              Otu01506
                           Otu01507 Otu01508
                                                  Otu01509
                                                                Otu01510
  CSI001 0.0000000000 4.690652e-05
                                            0 0.000000000 0.000000e+00
  CSI012 0.0000000000 8.107362e-04
                                            0 0.0001552474 0.000000e+00
  CSI022 0.0000000000 2.151556e-05
                                            0 0.0012263867 0.000000e+00
## CSI044 0.0000197157 0.000000e+00
                                            0 0.0000000000 3.943140e-05
  CSI055 0.0010326800 1.505992e-04
                                            0 0.0000000000 4.302833e-05
  CSI065 0.0001512802 0.000000e+00
                                            0 0.0000000000 3.782005e-05
                                            0 0.000000000 0.000000e+00
  CSI076 0.0000000000 7.226687e-04
          Otu01511 Otu01512
                                Otu01513
                                              Otu01514 Otu01515
                                                                     Otu01516
## CSI001
                 0
                          0 0.000000e+00 2.579858e-04
                                                              0 5.159717e-04
## CSI012
                 0
                          0 0.000000e+00 5.174912e-05
                                                              0 1.034982e-04
## CSI022
                 0
                          0 2.151556e-05 3.442489e-04
                                                              0 1.527604e-03
## CSI044
                 0
                          0 0.000000e+00 0.000000e+00
                                                              0 0.00000e+00
                 0
                          0 6.454250e-05 1.118737e-03
## CSI055
                                                              0 0.00000e+00
## CSI065
                 0
                          0 7.564010e-05 0.000000e+00
                                                              0 0.000000e+00
##
  CSI076
                 0
                          0 1.734405e-04 1.734405e-04
                                                              0 0.00000e+00
##
          Otu01517 Otu01518 Otu01519 Otu01520
                                                   Otu01521
                                                                 Ot:1101522
## CSI001
                 0
                          0
                                    0
                                             0 0.000000e+00 0.000000e+00
## CSI012
                          0
                                    0
                                             0 0.000000e+00 0.000000e+00
                 0
## CSI022
                 0
                          0
                                    0
                                             0 0.000000e+00 2.151556e-05
                          0
                                             0 0.000000e+00 0.000000e+00
## CST044
                 0
                                    0
## CSI055
                 0
                          0
                                    0
                                             0 0.000000e+00 1.721133e-04
## CSI065
                 0
                          0
                                    0
                                             0 0.000000e+00 0.000000e+00
  CSI076
                 0
                          0
                                             0 0.000000e+00 5.781349e-05
##
##
              Otu01523
                          Otu01524
                                        Otu01525 Otu01526
                                                              Ot:1101527
  CSI001 4.690652e-05 0.000000000 0.0000000000
                                                        0 4.690652e-05
## CSI012 0.000000e+00 0.000000000 0.0000000000
                                                        0 5.174912e-05
  CSI022 2.151556e-05 0.000000000 0.0000000000
                                                        0 4.518267e-04
  CSI044 1.380099e-04 0.000000000 0.0000000000
                                                        0 0.00000e+00
  CSI055 5.378542e-04 0.000129085 0.0004302833
                                                        0 0.00000e+00
  CSI065 0.000000e+00 0.000000000 0.0000000000
                                                        0 0.00000e+00
##
  CSI076 2.312540e-04 0.000000000 0.0000000000
                                                        0 0.00000e+00
##
             Otu01528
                          Otu01529
                                        Otu01530
                                                     Otu01531
                                                                   Otu01532
  CSI001 0.000000000 0.000000e+00 2.814391e-04 9.381303e-05 4.690652e-05
  CSI012 0.000000000 0.000000e+00 2.759953e-04 0.000000e+00 1.724971e-04
  CSI022 0.000000000 1.269418e-03 4.303111e-05 8.606222e-05 2.366711e-04
## CSI044 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI055 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI065 0.000000000 1.134602e-04 0.000000e+00 0.000000e+00 0.000000e+00
```

```
## CSI076 0.000000000 0.000000e+00 2.890675e-05 0.000000e+00 0.000000e+00
                       Otu01534 Otu01535 Otu01536 Otu01537
##
          Ot:1101533
                                                                 Ot:1101538
                 0 2.345326e-05
## CSI001
                                        0
                                                  0
                                                           0 4.690652e-05
## CSI012
                 0 1.724971e-05
                                        0
                                                  0
                                                           0 1.362727e-03
  CSI022
                 0 2.151556e-05
                                        0
                                                  0
                                                           0 4.303111e-05
                 0 0.000000e+00
                                        0
                                                  0
                                                           0 0.000000e+00
##
  CSI044
                                        0
                                                  0
  CSI055
                 0 3.657408e-04
                                                           0 8.605667e-05
## CSI065
                 0 0.00000e+00
                                        0
                                                  0
                                                             1.134602e-04
##
  CSI076
                 Ω
                   0.000000e+00
                                        0
                                                  0
                                                           0 8.672024e-05
                       Otu01540 Otu01541
##
          Otu01539
                                             Otu01542 Otu01543
                                                                    Otu01544
  CSI001
                 0 9.381303e-05
                                        0 0.00000000
                                                              0 0.00000e+00
## CSI012
                 0 8.624853e-05
                                        0 0.000000000
                                                              0 0.000000e+00
  CSI022
                 0 1.721244e-04
                                        0.00000000
                                                              0 0.000000e+00
                 0 0.000000e+00
## CSI044
                                        0 0.00000000
                                                              0 4.140297e-04
  CSI055
                 0 0.000000e+00
##
                                        0 0.000000000
                                                              0.8.605667e-05
##
  CSI065
                 0 0.00000e+00
                                        0 0.000000000
                                                              0 0.00000e+00
                 0 0.000000e+00
##
  CSI076
                                        0 0.000000000
                                                              0 0.00000e+00
##
          0tu01545
                       Otu01546
                                     Otu01547 Otu01548
                                                            Otu01549
## CSI001
                 0 0.000000e+00 2.814391e-04
                                                      0 0.0001641728
##
  CSI012
                 0 1.034982e-04 4.484924e-04
                                                      0 0.0001552474
##
  CSI022
                 0 0.000000e+00 0.000000e+00
                                                      0 0.000000000
  CSI044
                 0 0.000000e+00 0.000000e+00
                                                      0 0.000000000
                 0 0.000000e+00 4.302833e-05
##
  CSI055
                                                      0 0.0001505992
                 0 0.000000e+00 0.000000e+00
  CSI065
                                                      0 0.0001891003
##
  CSI076
                 0 8.672024e-05 0.000000e+00
                                                      0 0.0001445337
##
              Otu01550 Otu01551
                                     Otu01552
                                                   Otu01553 Otu01554 Otu01555
##
  CSI001 0.000000e+00
                               0 7.035977e-05 7.035977e-05
                                                                    0
                                                                             0
   CSI012 6.899883e-05
                               0 5.174912e-05 0.000000e+00
                                                                    0
                                                                             0
                               0 6.454667e-05 0.000000e+00
                                                                    0
                                                                             0
   CSI022 2.151556e-05
  CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                             0
   CSI055 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                             0
   CSI065 0.000000e+00
                               0 1.134602e-04 0.000000e+00
                                                                    0
                                                                             0
##
   CSI076 0.000000e+00
                               0 3.179742e-04 0.000000e+00
                                                                    0
##
          Otu01556
                       Otu01557
                                     Otu01558
                                                   Otu01559
                                                                Otu01560
  CSI001
                 0 1.172663e-04 0.000000e+00 4.690652e-05 7.505042e-04
##
  CSI012
                 0 3.967433e-04 0.000000e+00 6.899883e-05 1.724971e-04
##
  CSI022
                 0 1.290933e-04 0.000000e+00 2.151556e-04 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
##
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CST055
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST065
                 0 0.000000e+00 0.000000e+00 5.781349e-05 1.734405e-04
   CST076
          Otu01561 Otu01562
                                 Otu01563 Otu01564 Otu01565
##
                                                                 Ot:1101566
##
  CSI001
                 \cap
                           0 0.000000e+00
                                                  0
                                                           0 1.758994e-03
                                                  0
##
  CSI012
                 0
                           0 0.00000e+00
                                                           0 1.552474e-04
## CSI022
                 0
                           0 0.00000e+00
                                                  0
                                                           0 2.151556e-05
## CSI044
                 0
                                                  0
                           0 0.00000e+00
                                                           0 0.00000e+00
##
  CSI055
                 0
                           0 2.151417e-05
                                                  0
                                                           0 0.00000e+00
                 0
                                                  0
##
  CSI065
                           0 0.000000e+00
                                                           0 0.00000e+00
##
   CSI076
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.000000e+00
##
          Otu01567
                       Otu01568 Otu01569
                                              Otu01570 Otu01571
                                                                     Otu01572
## CSI001
                 0 0.000000e+00
                                                               0 0.0008443173
                                        0 4.221586e-04
## CSI012
                 0 0.00000e+00
                                        0 1.724971e-05
                                                               0 0.0001897468
## CSI022
                 0.000000e+00
                                        0 0.000000e+00
                                                               0 0.000000000
## CSI044
                 0 0.00000e+00
                                        0 0.000000e+00
                                                               0 0.000000000
```

```
## CSI055
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                0 0.000000000
  CST065
                  0 3.782005e-04
                                         0 0.000000e+00
                                                                0 0.000000000
##
   CSI076
                  0 0.00000e+00
                                         0 1.734405e-04
                                                                0 0.000000000
##
          Otu01573 Otu01574 Otu01575 Otu01576 Otu01577
                                                              Ot:1101578
##
  CST001
                  0
                           0
                                    0
                                              0
                                                        0 0.000000000
  CSI012
                  0
                           0
                                    0
                                              0
                                                        0 0.000000000
##
                           0
## CSI022
                  0
                                     0
                                              0
                                                        0 0.000000000
## CSI044
                  0
                           0
                                    0
                                              0
                                                        0 0.000000000
##
   CSI055
                  0
                           0
                                    0
                                              0
                                                        0 0.0001936275
                           0
                                    0
                                              0
##
   CSI065
                  0
                                                        0 0.000000000
##
   CSI076
                  0
                           0
                                     0
                                                        0 0.000000000
##
            Otu01579 Otu01580
                                   Otu01581
                                                 Otu01582
                                                               Otu01583 Otu01584
##
   CSI001 0.00000000
                             0 2.228059e-03 9.850368e-04 4.690652e-05
                                                                                0
                                                                                0
   CSI012 0.00000000
                             0 1.207479e-04 0.000000e+00 1.724971e-05
   CSI022 0.00000000
                             0 2.151556e-05 0.000000e+00 0.000000e+00
                                                                                0
   CSI044 0.00000000
                             0 0.000000e+00 0.000000e+00 1.971570e-05
                                                                                0
                             0 0.000000e+00 0.000000e+00 1.075708e-03
                                                                                0
   CSI055 0.00000000
   CSI065 0.00000000
                             0 0.000000e+00 0.000000e+00 7.564010e-05
                                                                                0
                             0 0.000000e+00 0.000000e+00 3.035208e-03
##
   CST076 0.00000000
                                                                                0
##
          Otu01585 Otu01586
                                 Otu01587 Otu01588 Otu01589
                                                                  Otu01590
##
  CSI001
                  Ω
                           0 2.345326e-05
                                                  0
                                                            0 0.000000e+00
## CSI012
                  0
                           0 6.899883e-05
                                                  0
                                                            0 0.000000e+00
## CSI022
                                                  0
                  0
                           0 2.151556e-05
                                                            0.000000e+00
                                                  0
##
  CSI044
                  0
                             0.000000e+00
                                                            0 0.00000e+00
                  0
                                                  0
##
  CST055
                           0 0.000000e+00
                                                            0 3.227125e-04
   CSI065
                  0
                           0 0.000000e+00
                                                  0
                                                            0 3.782005e-05
   CSI076
                  0
                           0 0.00000e+00
                                                  Λ
                                                            0 5.781349e-05
##
##
              Otu01591 Otu01592
                                      Otu01593
                                                   Otu01594 Otu01595 Otu01596
   CSI001 0.000000e+00
                               0 2.345326e-05 0.000000e+00
##
                                                                    0
                                                                              0
   CSI012 0.000000e+00
                               0 3.449941e-05 0.000000e+00
                                                                    0
                                                                              0
   CSI022 2.151556e-05
                               0 4.303111e-05 0.000000e+00
                                                                    0
                                                                              0
   CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
   CSI055 4.302833e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                               0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                                                    0
                                                                              0
   CSI076 1.156270e-04
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
##
          Otu01597
                                      Otu01599
##
                        Ot:1101598
                                                   Ot:1101600
                                                                 Ot:1101601
## CSI001
                  0 2.345326e-05 0.000000e+00 4.690652e-05 5.628782e-04
  CSI012
                  0 0.000000e+00 0.000000e+00 1.379977e-04 1.724971e-05
##
   CSI022
                  0 0.000000e+00 0.000000e+00 4.303111e-05 0.000000e+00
                  0 1.320952e-03 2.365884e-04 0.000000e+00 0.000000e+00
##
  CST044
                  0 0.000000e+00 0.000000e+00 3.442267e-04 2.151417e-05
   CSI055
   CSI065
                  0 5.181347e-03 0.000000e+00 0.000000e+00 0.000000e+00
##
##
   CST076
                  Λ
                   1.156270e-04 0.000000e+00 2.312540e-04 8.672024e-05
                                      Otu01604 Otu01605 Otu01606
##
          Otu01602
                        Otu01603
                                                                      Otu01607
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 4.690652e-05
  CSI012
                  0 0.000000e+00 0.000000e+00
                                                      0
##
                                                                0 6.899883e-05
##
   CSI022
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
   CSI044
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
##
   CSI055
                  0 0.000000e+00 8.605667e-05
                                                      0
                                                                0 0.000000e+00
   CSI065
                   0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
##
                  0 0.000000e+00 2.023472e-04
##
   CST076
                                                      0
                                                                0 6.648552e-04
##
          Otu01608 Otu01609 Otu01610
                                           Otu01611 Otu01612
                                                                  Otu01613
## CSI001
                  0
                           0
                                    0 7.035977e-05
                                                            0 0.000000000
## CSI012
                  0
                           0
                                    0 2.759953e-04
                                                            0 0.0002759953
```

```
## CSI022
                 0
                           0
                                    0 1.721244e-04
                                                           0 0.000000000
  CST044
                 0
                           0
                                    0 0.000000e+00
                                                           0 0.000000000
##
   CSI055
                 0
                           0
                                    0 2.151417e-05
                                                           0 0.000000000
  CSI065
                 0
                           0
                                    0 0.000000e+00
                                                           0 0.000000000
##
                                    0 0.000000e+00
##
   CST076
                 0
                           0
                                                           0 0.0000000000
              Otu01614
                                        Otu01616 Otu01617
##
                           Otu01615
                                                               Otu01618
   CSI001 0.000000e+00 0.00000e+00 4.925184e-04
                                                         0 0.00000e+00
   CSI012 0.000000e+00 0.00000e+00 1.379977e-04
                                                         0 0.00000e+00
   CSI022 0.000000e+00 0.00000e+00 2.151556e-05
                                                         0 0.000000e+00
   CSI044 0.000000e+00 0.00000e+00 0.000000e+00
                                                         0 0.00000e+00
   CSI055 0.000000e+00 6.45425e-05 0.000000e+00
                                                         0 8.820809e-04
   CSI065 0.000000e+00 0.00000e+00 0.000000e+00
                                                         0 1.512802e-04
   CSI076 2.890675e-05 0.00000e+00 0.000000e+00
                                                         0 1.098456e-03
          Otu01619
##
                        Otu01620 Otu01621 Otu01622
                                                        Otu01623 Otu01624
##
  CSI001
                 0 2.110793e-04
                                        0
                                                  0 0.000000e+00
                                                                         0
##
   CSI012
                 0 2.242462e-04
                                        0
                                                  0 0.00000e+00
                                                                         0
                                        0
                                                                         0
##
   CSI022
                 0 0.00000e+00
                                                   0.000000e+00
   CSI044
                  0 0.000000e+00
                                        0
                                                    0.000000e+00
                                                                         0
   CSI055
                                        0
                                                                         0
##
                  0.000000e+00
                                                  0 8.605667e-05
##
   CSI065
                  0 0.000000e+00
                                        0
                                                  0 0.00000e+00
                                                                         0
##
   CST076
                  0 0.000000e+00
                                        0
                                                  0 0.00000e+00
                                                                         0
                                               Otu01628 Otu01629 Otu01630
##
              Otu01625 Otu01626 Otu01627
  CSI001 9.381303e-05
                                                               0
##
                               0
                                        0 0.0001641728
                                                                         0
   CSI012 8.624853e-05
                                                               0
                               0
                                        0 0.0008107362
                                                                         0
                                                               0
                                                                         0
   CSI022 0.000000e+00
                               0
                                        0 0.000000000
   CSI044 5.914710e-05
                               0
                                        0 0.000000000
                                                               0
                                                                         0
   CSI055 4.302833e-04
                               0
                                          0.000000000
                                                               0
                                                                         0
                                        0
                                                               0
   CSI065 1.134602e-04
                               0
                                          0.000000000
                                                                         0
                                                               0
   CSI076 0.000000e+00
                               0
                                        0 0.000000000
                                                                         0
##
##
          Otu01631
                        Otu01632 Otu01633
                                          Otu01634
                                                        Otu01635
                                                                      Otu01636
## CSI001
                 0 0.000000000
                                        0
                                                  0 1.407195e-04 2.345326e-05
##
   CSI012
                 0 0.000000000
                                        0
                                                  0 5.174912e-05 0.000000e+00
   CSI022
                  0.0000000000
                                        0
                                                  0 2.151556e-05 0.000000e+00
                                        0
##
   CSI044
                  0.0000000000
                                                  0 0.000000e+00 0.000000e+00
   CSI055
                  0 0.0003227125
                                        0
                                                   1.936275e-04 1.290850e-04
##
                  0.000000000
                                        0
                                                  0 0.000000e+00 3.403805e-04
##
   CST065
##
   CSI076
                  0 0.0001445337
                                        0
                                                  0 0.000000e+00 5.781349e-05
##
              Otu01637 Otu01638
                                     Otu01639
                                                   Otu01640 Otu01641
   CSI001 3.283456e-04
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 0.000000e+00 0.000000e+00
   CSI012 1.552474e-04
                                                                    0
##
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI022 8.606222e-05
   CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI055 0.000000e+00
                               0 0.000000e+00 4.733117e-04
                                                                    0
                                                                    0
   CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00
                               0 8.672024e-05 3.757877e-04
##
                            Otu01643 Otu01644 Otu01645 Otu01646
                                                                      Otu01647
              Otu01642
   CSI001 0.000000e+00 2.345326e-05
                                            0
                                                      0
                                                               0 0.000000000
                                             0
   CSI012 5.174912e-05 1.724971e-05
                                                      0
                                                               0 0.000000000
   CSI022 1.290933e-04 0.000000e+00
                                            0
                                                      0
                                                               0.000000000
   CSI044 0.000000e+00 1.971570e-05
                                             0
                                                      0
                                                                 0.000000000
   CSI055 2.581700e-04 0.000000e+00
                                             0
                                                      0
                                                               0 0.000000000
   CSI065 0.000000e+00 6.429409e-04
                                             0
                                                      0
                                                               0 0.000000000
##
   CSI076 0.000000e+00 2.890675e-05
                                             0
                                                      0
                                                               0.0000000000
##
              Otu01648
                            Otu01649 Otu01650
                                                   Otu01651 Otu01652 Otu01653
```

```
## CSI001 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                              0
  CSI012 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI022 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
  CSI044 0.000000e+00 1.971570e-05
                                             0 3.943140e-05
                                                                    0
                                                                              0
   CSI055 8.605667e-05 4.302833e-05
                                             0 6.454250e-05
                                                                    0
   CSI065 0.000000e+00 0.000000e+00
                                             0 1.512802e-04
                                                                    0
                                                                              0
   CSI076 0.000000e+00 0.000000e+00
                                             0 1.734405e-04
                                                                    0
                                                                              0
                                     Otu01656 Otu01657
##
          Otu01654
                        Ot:1101655
                                                            Ot:1101658
## CSI001
                 0 0.000000e+00 0.000000e+00
                                                      0 0.0003987054
##
  CSI012
                 0 0.000000e+00 0.000000e+00
                                                      0 0.0004139930
  CSI022
                 0 0.000000e+00 0.000000e+00
                                                      0 0.0002581867
                 0 0.000000e+00 0.000000e+00
##
  CSI044
                                                      0 0.0000000000
##
   CSI055
                 0 3.011983e-04 4.517975e-04
                                                      0 0.000000000
##
   CSI065
                  0 0.000000e+00 1.891003e-04
                                                      0 0.000000000
   CSI076
                 0 0.000000e+00 8.672024e-05
                                                      0.000000000
##
##
              Otu01659
                            Otu01660 Otu01661 Otu01662 Otu01663
                                                                      Otu01664
   CSI001 3.752521e-04 0.000000e+00
                                             0
                                                      0
                                                                0 7.035977e-05
##
   CSI012 7.762368e-04 0.000000e+00
                                             0
                                                      0
                                                                0 4.484924e-04
   CSI022 2.151556e-05 4.303111e-05
                                             0
                                                      0
                                                                0 1.075778e-04
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00
                                             0
                                                      Λ
                                                                0 1.075708e-04
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 2.269203e-04
  CSI076 0.000000e+00 0.000000e+00
##
                                             0
                                                                0 8.672024e-05
                                                      0
##
              Ot:1101665
                            Otu01666
                                         Otu01667
                                                       Otu01668
                                                                    Ot:1101669
##
  CSI001 2.345326e-05 0.000000e+00 1.243023e-03 1.641728e-04 0.00000e+00
   CSI012 1.724971e-05 0.000000e+00 2.242462e-04 5.174912e-05 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00 2.581867e-04 0.000000e+00 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 1.97157e-05
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.00000e+00
##
   CSI076 2.890675e-04 0.000000e+00 2.890675e-05 2.890675e-05 0.00000e+00
##
              Otu01670 Otu01671
                                     Otu01672 Otu01673 Otu01674 Otu01675
   CSI001 2.345326e-05
                               0 7.035977e-05
                                                      0
                                                                0
                                                                         0
   CSI012 8.624853e-05
                                                                0
                                                                         0
                               0 0.00000e+00
                                                      0
   CSI022 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0
                                                                         0
   CSI044 0.000000e+00
                                                                0
                               0 0.00000e+00
                                                      0
                                                                         0
   CSI055 0.000000e+00
                               0 2.151417e-05
                                                      0
                                                                0
                                                                         0
  CSI065 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                                0
                                                                         Λ
##
   CSI076 1.156270e-04
                               0 1.214083e-03
                                                      0
                                                                0
##
                                                                         0
          Otu01676 Otu01677
                                 Otu01678 Otu01679 Otu01680 Otu01681 Otu01682
##
## CSI001
                 0
                           0 0.00000e+00
                                                  0
                                                           0
                                                                     0
## CSI012
                 0
                           0 1.207479e-04
                                                  0
                                                           0
                                                                     0
                                                                              0
  CSI022
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                               0
                 0
                                                  0
                                                            0
                                                                               0
  CSI044
                           0 0.00000e+00
                                                                     Λ
##
## CSI055
                 0
                           0 0.00000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
                           0 0.000000e+00
## CSI065
                                                  0
                                                            0
                                                                     0
                                                                               0
                 0
##
  CSI076
                 0
                           0 0.00000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
##
              Otu01683 Otu01684 Otu01685 Otu01686
                                                        Otu01687 Otu01688
## CSI001 2.345326e-05
                               0
                                        0
                                                  0 3.517989e-04
                                                                         0
  CSI012 1.897468e-04
                               0
                                         0
                                                  0 2.587456e-04
                                                                         0
                               0
                                        0
                                                                         0
  CSI022 2.151556e-05
                                                  0 3.012178e-04
## CSI044 0.000000e+00
                               0
                                        0
                                                  0 0.00000e+00
                                                                         0
## CSI055 0.000000e+00
                               0
                                        0
                                                  0 0.00000e+00
                                                                         0
## CSI065 0.000000e+00
                               0
                                        0
                                                  0 0.00000e+00
                                                                         0
```

```
## CSI076 0.000000e+00
                               0
                                        0
                                                  0 0.00000e+00
                                                                         0
          Otu01689 Otu01690 Otu01691 Otu01692
##
                                                    Otu01693
                                                                  Ot.1101694
## CSI001
                 0
                           0
                                    0
                                              0 7.035977e-05 2.345326e-05
## CSI012
                 0
                           0
                                    0
                                              0 1.724971e-05 8.624853e-05
## CSI022
                 0
                           0
                                    0
                                              0 0.000000e+00 2.151556e-05
                 0
                           0
                                              0 0.000000e+00 0.000000e+00
## CSI044
                                    0
                           0
## CSI055
                 0
                                    0
                                              0 8.605667e-05 0.000000e+00
## CSI065
                 0
                           0
                                    0
                                              0 3.782005e-05 0.000000e+00
##
  CSI076
                 0
                           0
                                    0
                                              0 2.023472e-04 0.000000e+00
##
          Otu01695 Otu01696 Otu01697
                                          Otu01698 Otu01699
                                                                  Otu01700
## CSI001
                 0
                           0
                                    0 0.00000e+00
                                                           0 2.345326e-05
## CSI012
                 0
                           0
                                    0 0.00000e+00
                                                           0 6.899883e-05
## CSI022
                 0
                           0
                                    0 2.151556e-05
                                                           0 0.000000e+00
                           0
                                    0 0.000000e+00
                                                           0 0.00000e+00
## CSI044
                 0
## CSI055
                 0
                           0
                                    0 0.00000e+00
                                                           0.0.000000e+00
## CSI065
                 0
                           0
                                    0 7.904391e-03
                                                           0 0.00000e+00
                 0
                           0
                                    0 0.000000e+00
##
  CSI076
                                                           0 0.00000e+00
              Otu01701 Otu01702 Otu01703 Otu01704 Otu01705
##
                                                             Otu01706
## CSI001 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                     0
## CSI012 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                     0
  CSI022 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                     0
## CSI044 0.0000197157
                                        0
                                                  0
                                                           0
                               0
                                                                     0
## CSI055 0.0000000000
                                        0
                                                  0
                               0
                                                           0
                                                                     0
   CSI065 0.0000000000
                               0
                                        0
                                                  0
                                                           0
  CSI076 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                     0
              Otu01707
                            Otu01708 Otu01709
                                                   Otu01710
                                                                Otu01711
## CSI001 0.000000e+00 0.0000000000
                                            0 0.000000e+00 7.035977e-05
   CSI012 0.000000e+00 0.0000000000
                                            0 0.000000e+00 1.724971e-05
   CSI022 0.000000e+00 0.0000000000
                                            0 2.151556e-05 1.506089e-04
   CSI044 0.000000e+00 0.0000000000
                                            0 0.000000e+00 0.000000e+00
   CSI055 8.605667e-05 0.0007099675
                                            0 1.290850e-04 0.000000e+00
   CSI065 0.000000e+00 0.0001512802
                                            0 3.782005e-05 0.000000e+00
   CSI076 0.000000e+00 0.0000000000
                                            0 1.734405e-04 0.000000e+00
##
              Otu01712
                            Otu01713 Otu01714 Otu01715
                                                           Otu01716
   CSI001 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
   CSI012 0.000000e+00 0.000000e+00
                                            0
                                                      0.00000e+00
   CSI022 2.151556e-05 0.000000e+00
                                            0
                                                      0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            Λ
                                                      0 1.97157e-05
   CSI055 0.000000e+00 0.000000e+00
                                            0
                                                      0.00000e+00
   CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      0.00000e+00
   CSI076 0.000000e+00 0.000000e+00
                                            0
                                                      0.00000e+00
                            Otu01718 Otu01719
##
              0t.1101717
                                                   Ot:1101720
                                                                0t_{11}01721
   CSI001 0.000000e+00 0.0000000000
                                            0 0.000000e+00 1.407195e-04
   CSI012 0.000000e+00 0.0000000000
                                            0 0.000000e+00 8.624853e-05
   CSI022 0.000000e+00 0.0000000000
                                            0 0.000000e+00 3.227333e-04
                                            0 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.0000000000
   CSI055 1.721133e-04 0.0000000000
                                            0 2.151417e-05 0.000000e+00
   CSI065 0.000000e+00 0.0000000000
                                            0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00 0.0006648552
                                            0 1.445337e-04 0.000000e+00
          0tu01722
                        Otu01723
                                     Otu01724 Otu01725
                                                            Otu01726
##
## CSI001
                 0 0.000000e+00 0.000000e+00
                                                      0 2.345326e-05
## CSI012
                 0 0.000000e+00 0.000000e+00
                                                      0 1.379977e-04
## CSI022
                 0 0.000000e+00 0.000000e+00
                                                      0 4.303111e-05
## CSI044
                 0 0.000000e+00 0.000000e+00
                                                      0 0.000000e+00
```

```
## CSI055
                 0 0.000000e+00 6.454250e-05
                                                     0 1.075708e-04
                 0 0.000000e+00 1.512802e-04
  CST065
                                                     0 7.564010e-05
##
  CSI076
                 0 0.000000e+00 5.781349e-05
                                                     0 3.179742e-04
##
              Otu01727
                           Otu01728
                                         Otu01729
                                                      Otu01730 Otu01731
  CSI001 0.000000e+00 0.000000e+00 0.0000000000 2.345326e-05
  CSI012 2.587456e-04 0.000000e+00 0.000000000 0.000000e+00
                                                                       0
   CSIO22 2.151556e-05 0.000000e+00 0.000000000 0.000000e+00
                                                                       0
  CSI044 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                       0
   CSI055 0.000000e+00 0.000000e+00 0.0004948258 0.000000e+00
                                                                       0
   CSI065 0.000000e+00 3.782005e-05 0.000000000 0.000000e+00
                                                                       0
   CSI076 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
##
              Otu01732
                           Otu01733
                                         Otu01734
                                                       Otu01735 Otu01736
##
  CSI001 0.000000e+00 4.925184e-04 2.345326e-04 2.345326e-05
                                                                       0
   CSI012 0.000000e+00 5.174912e-04 6.899883e-05 0.000000e+00
                                                                       0
  CSIO22 0.000000e+00 2.151556e-05 2.151556e-05 0.000000e+00
                                                                       0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI055 6.239108e-04 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 1.127363e-03 0.000000e+00 0.000000e+00 2.890675e-05
##
                                                                       0
##
          Otu01737 Otu01738 Otu01739 Otu01740
                                                   Otu01741 Otu01742 Otu01743
##
  CSI001
                 Ω
                           Λ
                                    0
                                             0 0.000000000
                                                                    0
                                                                             0
## CSI012
                 0
                           0
                                    0
                                                                    0
                                                                             0
                                             0.0000000000
## CSI022
                                                                             0
                 0
                           0
                                    0
                                             0 0.000000000
                                                                    0
## CSI044
                 0
                           0
                                    0
                                             0 0.0000197157
                                                                    0
                                                                             0
                           0
                                                                    0
                                                                             0
## CST055
                 0
                                    0
                                             0.0000000000
  CSI065
                 0
                           0
                                    0
                                             0 0.000000000
                                                                    0
                                                                             0
  CSI076
                 0
                           0
                                    0
                                             0 0.000000000
                                                                    0
                                                                             0
##
##
              Otu01744
                           Otu01745
                                         Otu01746 Otu01747
                                                                Otu01748
  CSI001 0.000000e+00 0.000000000 0.000000e+00
                                                         0 2.110793e-04
  CSI012 1.724971e-05 0.0000000000 5.174912e-05
                                                          0 1.724971e-05
   CSI022 0.000000e+00 0.0000000000 1.290933e-04
                                                          0 4.303111e-05
   CSI044 0.000000e+00 0.0000000000 0.000000e+00
                                                          0 0.000000e+00
   CSI055 0.000000e+00 0.0000645425 1.290850e-04
                                                          0 0.00000e+00
  CSI065 0.000000e+00 0.0000000000 0.000000e+00
                                                          0 0.00000e+00
   CSI076 0.000000e+00 0.0000000000 2.312540e-04
                                                          0 2.312540e-04
##
                       Otu01750 Otu01751 Otu01752
          Otu01749
##
                                                       0t.1101753
                                                                     Ot:1101754
## CSI001
                 0 2.814391e-04
                                        0
                                                 0 0.000000e+00 0.0000000000
## CSI012
                 0 2.069965e-04
                                        0
                                                 0 5.174912e-05 0.0007244877
                 0 6.454667e-05
                                        0
                                                 0 8.606222e-05 0.0002797022
## CST022
                                        Λ
                                                 0 0.000000e+00 0.0000000000
## CST044
                 0.000000e+00
                                        0
  CSI055
                 0 0.00000e+00
                                                 0 0.000000e+00 0.0000000000
                 0 3.782005e-05
                                        0
                                                 0 0.000000e+00 0.0000000000
##
  CST065
##
  CST076
                 0 1.156270e-04
                                        0
                                                 0 0.000000e+00 0.0000000000
##
              Otu01755 Otu01756
                                     Otu01757
                                                  Otu01758 Otu01759
                               0 0.000000e+00 0.0000000000
  CSI001 0.0008912238
                                                                   0
  CSI012 0.0004484924
                               0 0.000000e+00 0.0000000000
                                                                   0
  CSI022 0.0000000000
                               0 6.454667e-05 0.0000000000
                                                                   0
  CSI044 0.0000000000
                               0 0.000000e+00 0.0000394314
                                                                   0
  CSI055 0.0000000000
                               0 0.000000e+00 0.0031410684
                                                                   0
  CSI065 0.0000000000
                               0 0.000000e+00 0.0000000000
                                                                   0
##
  CSI076 0.0000000000
                               0 0.000000e+00 0.0000000000
                                                                   0
##
##
              Otu01760
                           Otu01761
                                         Otu01762
                                                       Otu01763 Otu01764
## CSI001 7.035977e-05 1.172663e-04 0.000000e+00 1.407195e-04
                                                                       0
## CSI012 1.724971e-05 8.624853e-05 0.000000e+00 1.897468e-04
                                                                       0
```

```
## CSI022 0.000000e+00 4.087956e-04 0.000000e+00 2.151556e-05
                                                                       0
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI055 0.000000e+00 6.454250e-04 2.151417e-05 0.000000e+00
                                                                       0
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
##
   CSI076 0.000000e+00 9.828294e-04 0.000000e+00 0.000000e+00
                                                                       0
              Otu01765
                            Otu01766
                                         Otu01767 Otu01768 Otu01769
##
  CSI001 0.000000e+00 0.0001407195 7.035977e-05
                                                                   0
  CSI012 3.449941e-05 0.0002932450 0.000000e+00
                                                          0
                                                                   0
   CSI022 1.506089e-04 0.0002151556 8.606222e-05
                                                          0
                                                                   0
   CSI044 0.000000e+00 0.000000000 0.000000e+00
                                                          \cap
                                                                   0
   CSI055 0.000000e+00 0.000000000 0.000000e+00
                                                          0
                                                                   0
   CSI065 0.000000e+00 0.000000000 0.000000e+00
                                                          0
                                                                   0
##
   CSI076 0.000000e+00 0.0000000000 0.000000e+00
                                                          0
                                                                   0
              Otu01770
##
                            Otu01771
                                         Otu01772 Otu01773 Otu01774
  CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
##
                                                                   0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI044 0.000000e+00 0.000000e+00 1.971570e-05
                                                                   0
  CSI055 1.075708e-04 0.000000e+00 1.226308e-03
                                                                   0
                                                          0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
  CSI076 5.781349e-05 2.890675e-05 1.098456e-03
##
                                                          \cap
                                                                   0
##
              Ot:1101775
                            Ot:1101776
                                        Ot:1101777
                                                      Ot:1101778 Ot:1101779
  CSI001 0.0031192833 0.000000e+00 0.000000000 3.987054e-04
                                                                       0
   CSI012 0.0000000000 3.449941e-05 0.00000000 0.000000e+00
                                                                       0
  CSI022 0.0000000000 2.151556e-05 0.000000000 0.000000e+00
                                                                       0
   CSI044 0.0000000000 0.000000e+00 0.000000000 0.000000e+00
                                                                       0
  CSI055 0.0000000000 0.000000e+00 0.000000000 2.151417e-05
                                                                       0
   CSI065 0.0000000000 7.564010e-05 0.004424946 0.000000e+00
                                                                       0
                                                                       0
   CSI076 0.000000000 0.000000e+00 0.00000000 0.000000e+00
##
##
          Otu01780
                        Otu01781
                                     Otu01782 Otu01783 Otu01784 Otu01785
## CSI001
                 0 0.000000e+00 0.0000000000
                                                      0
                                                               0
                                                                         0
##
  CSI012
                 0 0.000000e+00 0.0000000000
                                                      0
                                                               0
                                                                         0
  CSI022
                 0 2.151556e-05 0.0000000000
                                                      0
                                                               0
                                                                         0
                                                               0
                                                                         0
  CSI044
                 0 0.000000e+00 0.0000591471
                                                      0
##
   CSI055
                 0 0.000000e+00 0.0000000000
                                                      0
                                                               0
                                                                         0
                                                               0
##
  CST065
                 0 0.000000e+00 0.0000000000
                                                      0
                                                                         0
##
  CSI076
                 0 0.000000e+00 0.0010406429
                                                      0
                                                               0
                                                                         0
##
              Otu01786
                            Otu01787 Otu01788
                                                   Otu01789 Otu01790
  CSI001 1.641728e-04 0.000000e+00
                                            0.000000e+00
  CSI012 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                   0
  CSI022 0.000000e+00 8.606222e-05
                                            0 0.00000e+00
                                                                   0
  CSI044 0.000000e+00 0.000000e+00
                                                                   0
                                            0.000000e+00
  CSI055 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                   0
                                                                   0
   CSI065 0.000000e+00 7.564010e-05
                                            0 0.00000e+00
   CSI076 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                   0
##
              Otu01791 Otu01792
                                     Otu01793
                                                   Otu01794
                                                                Otu01795
  CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI012 1.724971e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI022 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
  CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00 4.916607e-03
##
  CSI076 0.000000e+00
                               0 0.000000e+00 2.890675e-05 0.000000e+00
##
          Otu01796
                       Otu01797
                                     Otu01798 Otu01799 Otu01800
                                                                      Otu01801
```

```
## CSI001
                 0 0.000000e+00 9.381303e-05
                                                    0
                                                             0 0.00000e+00
  CST012
                 0 0.000000e+00 1.724971e-05
                                                    0
##
                                                             0 0.00000e+00
##
  CSI022
                 0 0.000000e+00 0.000000e+00
                                                    0
                                                             0 0.00000e+00
  CSI044
                  0.000000e+00 0.000000e+00
                                                    0
                                                             0 0.000000e+00
##
##
  CSI055
                  0.000000e+00 0.000000e+00
                                                    0
                                                             0 0.000000e+00
                  3.782005e-05 0.000000e+00
                                                    0
##
  CST065
                                                             0 0.00000e+00
                  0.000000e+00 0.000000e+00
##
  CSI076
                                                    0
                                                             0.000000e+00
##
          Otu01802
                       Ot:1101803
                                    Otu01804 Otu01805 Otu01806 Otu01807
##
  CSI001
                 Ω
                  0.000000e+00 0.000000e+00
                                                    Λ
                                                             0
                                                                      0
                                                    0
                                                             0
                                                                      0
##
  CSI012
                  8.624853e-05 0.000000e+00
  CSI022
                  1.290933e-04 0.000000e+00
                                                    0
                                                             0
                                                                      0
                                                             0
  CSI044
                  7.886280e-05 0.000000e+00
                                                    0
                                                                      0
##
##
  CSI055
                  0.000000e+00 0.000000e+00
                                                    0
                                                             0
                                                                      0
                                                             0
##
  CSI065
                  0.000000e+00 3.782005e-05
                                                    0
                                                                      0
  CSI076
                  0.000000e+00 0.000000e+00
                                                    0
                                                             0
                                                                      0
##
##
          Otu01808
                       Otu01809
                                    Otu01810 Otu01811 Otu01812
                                                                   Otu01813
  CSI001
                                                    0
                                                             0 0.000000e+00
##
                 0 0.0003283456 4.690652e-05
  CSI012
                 0 0.000000000 0.000000e+00
                                                    0
                                                             0 0.00000e+00
##
  CSI022
                 0 0.0000000000 2.151556e-05
##
                                                    0
                                                             0 2.151556e-05
##
  CSI044
                  0.0000000000 0.000000e+00
                                                    0
                                                             0 0.00000e+00
##
  CSI055
                  0.0000000000 3.442267e-04
                                                    Λ
                                                             0 0.000000e+00
  CSI065
                  0.000000000 0.000000e+00
                                                    0
                                                             0 0.000000e+00
##
                  0.000000000 8.672024e-05
                                                    0
                                                             0 0.000000e+00
##
  CSI076
                 Λ
##
          Otu01814
                       Otu01815
                                    Otu01816 Otu01817 Otu01818
                                                               Ot:1101819
## CSI001
                 0 3.987054e-04 7.035977e-05
                                                    0
                                                             0
                                                                      0
  CSI012
                 0 0.000000e+00 0.000000e+00
                                                    0
                                                             0
                                                                      0
  CSI022
                  4.303111e-05 0.000000e+00
                                                    0
                                                             0
                                                                      0
##
                 0 0.000000e+00 0.000000e+00
                                                             0
##
  CSI044
                                                    0
                                                                      0
                                                             0
  CSI055
                 0 5.163400e-04 6.023967e-04
                                                    0
                                                                      0
##
##
  CSI065
                 0 0.000000e+00 3.782005e-05
                                                    0
                                                             0
                                                                      0
##
  CSI076
                 0 0.000000e+00 0.000000e+00
                                                    0
                                                             0
                                                                      0
##
          Otu01820
                       Otu01821 Otu01822
                                             Otu01823
                                                          Otu01824
##
  CSI001
                 0 0.000000e+00
                                       0 0.0003048923 0.000000e+00
  CSI012
                 0 0.000000e+00
                                       0 0.000000000 5.174912e-05
##
   CSI022
                 0 4.303111e-05
                                       0 0.0001506089 2.151556e-05
                 0 0.000000e+00
                                       0 0.000000000 0.000000e+00
##
  CST044
##
  CSI055
                 0 0.000000e+00
                                       0 0.000000000 0.000000e+00
##
  CSI065
                 0 0.000000e+00
                                       0 0.0000000000 3.782005e-05
                 0 0.000000e+00
                                       0 0.000000000 0.000000e+00
##
  CSI076
##
              Otu01825 Otu01826
                                    Ot:1101827
                                                 Ot:1101828
                                                              Ot:1101829
  CSI001 2.345326e-05
                              0 0.00000e+00 0.000000e+00 0.000000000
  CSI012 6.899883e-05
                              0 2.151556e-05 0.000000e+00 0.0009897156
   CSI022 0.000000e+00
   CSI044 0.000000e+00
                              CSI055 0.000000e+00
                              0 3.442267e-04 0.000000e+00 0.0000000000
   CSI065 0.000000e+00
                              0 3.782005e-05 0.000000e+00 0.0000000000
##
  CSI076 0.000000e+00
                              Otu01830 Otu01831 Otu01832
                                                          Otu01834 Otu01835
##
                                             Otu01833
  CSI001 0.000000e+00
                              0
                                       0 0.000000e+00 0.0000000000
                                                                          0
  CSI012 0.000000e+00
                              0
                                       0 0.000000e+00 0.0000000000
                                                                          0
  CSI022 0.000000e+00
                              0
                                       0 2.151556e-05 0.0000000000
                                                                          0
## CSI044 0.000000e+00
                              0
                                       0 0.000000e+00 0.0000000000
                                                                          0
## CSI055 6.454250e-05
                              0
                                       0 1.505992e-04 0.0000000000
                                                                          0
## CSI065 7.564010e-05
                              0
                                       0 0.000000e+00 0.0000000000
                                                                          0
```

```
## CSI076 0.000000e+00
                                        0 5.781349e-05 0.0002312540
                                                                             0
##
                            Otu01837 Otu01838
                                                   Otu01839 Otu01840 Otu01841
              Ot:1101836
##
  CSI001 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
  CSI012 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
  CSI022 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
  CSI044 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                    0
                                                                             0
   CSI055 2.151417e-05 1.979303e-03
                                            0 4.302833e-05
                                                                    0
                                                                             0
## CSI065 0.000000e+00 0.000000e+00
                                            0.000000e+00
                                                                    0
                                                                             0
  CSI076 0.000000e+00 2.601607e-04
                                            0 5.781349e-05
                                                                    0
                                                                             O
##
              Otu01842
                            Otu01843 Otu01844
                                                   Otu01845 Otu01846 Otu01847
  CSI001 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                    0
                                                                             0
## CSI012 0.000000e+00 0.000000e+00
                                                                    0
                                            0 0.00000e+00
                                                                             0
  CSI022 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
   CSI044 7.886280e-05 0.000000e+00
                                            0 0.00000e+00
                                                                    0
                                                                             0
   CSI055 6.454250e-05 2.151417e-05
                                                                    0
                                            0.0.000000e+00
                                                                             0
   CSI065 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                    0
   CSI076 0.000000e+00 0.000000e+00
                                            0 8.672024e-05
                                                                    0
                                                                             0
##
          Otu01848
                        Otu01849 Otu01850
                                               Otu01851
                                                            Otu01852
## CST001
                 0 2.345326e-05
                                        0 3.987054e-04 0.000000e+00
## CSI012
                 0 4.484924e-04
                                        0 6.899883e-05 0.000000e+00
##
  CSI022
                 0 2.581867e-04
                                        0 0.000000e+00 4.303111e-05
                                        0 0.000000e+00 0.000000e+00
## CST044
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
## CST055
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
  CSI065
                 0 0.00000e+00
##
  CST076
                 0 0.00000e+00
                                        0 0.000000e+00 0.000000e+00
              Otu01853 Otu01854 Otu01855 Otu01856
                                                        Otu01857 Otu01858
## CSI001 0.000000e+00
                                        0
                                                  0 0.000000000
                                                                         0
                               0
   CSI012 0.000000e+00
                               0
                                        0
                                                  0 0.000000000
                                                                         0
                               0
                                        0
                                                  0 0.000000000
                                                                         0
   CSI022 0.000000e+00
   CSI044 0.000000e+00
                               0
                                        0
                                                  0 0.000000000
                                                                         0
   CSI055 8.605667e-05
                               0
                                        0
                                                  0 0.0002366558
                                                                         0
   CSI065 3.782005e-05
                               0
                                        0
                                                  0 0.000000000
                                                                         0
   CSI076 0.000000e+00
                               0
                                        0
                                                  0 0.000000000
                                                                         0
##
              Otu01859 Otu01860 Otu01861
                                              Otu01862 Otu01863 Otu01864
   CSI001 2.345326e-04
                               0
                                        0 0.000000000
                                                                0
                                                                         0
  CSI012 2.759953e-04
                               0
                                                               0
                                                                         0
                                        0 0.000000000
## CSI022 1.290933e-04
                               0
                                        0 0.000000000
                                                                0
                                                                         0
## CSI044 0.000000e+00
                               0
                                        0 0.000000000
                                                               Ω
                                                                         0
   CSI055 0.000000e+00
                                                                0
                                                                         0
                               0
                                        0.0.0001505992
  CSI065 0.000000e+00
                                                                0
                                                                         0
                               0
                                        0.0000000000
   CSI076 0.000000e+00
                               0
                                        0 0.000000000
##
              Otu01865 Otu01866 Otu01867 Otu01868 Otu01869 Otu01870 Otu01871
   CSI001 0.0001641728
                               0
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
                                                           0
                                                                              0
   CSI012 0.0001207479
                               0
                                        0
                                                  0
                                                                     0
  CSI022 0.0002797022
                               0
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI044 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                              0
                                                                     0
   CSI055 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
                                                  0
                                                           0
                                                                     0
   CSI065 0.0000000000
                                        0
                                                                              0
##
   CSI076 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
##
              Otu01872
                            Otu01873 Otu01874
                                                   Otu01875 Otu01876 Otu01877
                                            0 4.690652e-05
  CSI001 1.641728e-04 2.345326e-05
                                                                    0
                                                                             0
## CSI012 8.624853e-05 0.000000e+00
                                            0 1.724971e-05
                                                                    0
                                                                             0
## CSI022 0.000000e+00 0.000000e+00
                                            0.000000e+00
                                                                    0
                                                                             0
## CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
```

```
## CSI055 0.000000e+00 4.733117e-04
                                            0 1.075708e-04
                                                                   0
  CSI065 0.000000e+00 0.000000e+00
                                            0 3.782005e-05
                                                                   0
  CSI076 5.781349e-05 2.890675e-05
                                            0 2.023472e-04
                                                                   0
##
              Otu01878
                            Otu01879 Otu01880 Otu01881 Otu01882 Otu01883
  CSI001 4.456119e-04 2.345326e-05
                                            0
                                                      0
                                                               0
                                                                        0
                                            0
                                                      0
                                                               0
                                                                        0
## CSI012 3.967433e-04 5.174912e-04
  CSI022 1.721244e-04 8.606222e-05
                                                               0
                                            0
                                                      0
                                                                        0
## CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                        0
   CSI055 0.000000e+00 0.000000e+00
                                            Λ
                                                      0
                                                               0
                                                                        0
                                            Λ
                                                               0
                                                                        0
   CSI065 0.000000e+00 0.000000e+00
                                                      Λ
   CSI076 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                        0
          Otu01884 Otu01885
##
                                 Otu01886
                                              Otu01887 Otu01888 Otu01889
##
  CSI001
                 0
                           0 0.0000000000 0.000000e+00
                                                               0
                                                                        0
## CSI012
                                                               0
                 0
                           0 0.0000000000 1.724971e-05
                                                                        0
## CSI022
                 0
                           0 0.000000000 0.000000e+00
                                                               0
                                                                        0
## CSI044
                 0
                           0 0.000000000 0.000000e+00
                                                               0
                                                                        0
                 0
                           0 0.000000000 6.454250e-05
                                                               0
## CSI055
                                                                        0
  CSI065
                           0 0.0004538406 3.782005e-05
                                                               0
                                                                        0
##
                           0 0.000000000 0.000000e+00
                                                               0
##
  CST076
                 0
                                                                        0
##
          Otu01890
                       Otu01891
                                     Otu01892
                                                  Otu01893
                                                                Otu01894
                 0 2.814391e-04 2.345326e-05 0.000000000 0.000000e+00
## CSI001
## CSI012
                 0 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
## CSI022
                 0 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
## CSI044
## CST055
                 0 2.151417e-05 2.151417e-05 0.000000000 0.000000e+00
  CSI065
                 0 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                 0 0.000000e+00 2.023472e-04 0.000000000 0.000000e+00
##
  CSI076
                       Otu01896 Otu01897 Otu01898
##
          Otu01895
                                                       Otu01899 Otu01900
                                                                        0
                 0 0.000000000
                                        0
                                                 0 0.000000e+00
## CSI001
## CSI012
                 0 0.0004139930
                                        0
                                                 0 1.724971e-05
                                                                        0
## CSI022
                 0 0.000000000
                                        0
                                                 0 8.606222e-05
                                                                        0
  CST044
                 0 0.000000000
                                        0
                                                 0 0.000000e+00
                                                                        0
  CSI055
                 0 0.000000000
                                        0
                                                 0 0.00000e+00
                                                                        0
                                        0
  CSI065
                 0 0.000000000
                                                 0 0.00000e+00
                                                                        0
##
                 0 0.000000000
                                        0
                                                 0 0.00000e+00
                                                                        0
##
   CSI076
             Otu01901 Otu01902 Otu01903
##
                                             Otu01904
                                                           Ot:1101905
## CSI001 0.000000000
                             0
                                       0 0.000000e+00 0.000000e+00
## CSI012 0.00000000
                             0
                                       0 1.724971e-05 0.000000e+00
## CSI022 0.000000000
                             0
                                       0 0.000000e+00 0.000000e+00
                             0
                                       0 0.000000e+00 0.000000e+00
## CSI044 0.000000000
                              0
  CSI055 0.000000000
                                       0 0.000000e+00 1.290850e-04
  CSI065 0.000000000
                              0
                                       0 0.000000e+00 1.512802e-04
  CSI076 0.000000000
                              0
                                       0 2.890675e-05 0.000000e+00
                            Otu01907 Otu01908
##
              Otu01906
                                                  Otu01909
                                                                Otu01910
  CSI001 2.345326e-05 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
## CSI012 8.624853e-05 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI022 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 0.000000e+00
                                            0 5.781349e-05 0.000000e+00
##
##
          Otu01911
                       Otu01912 Otu01913 Otu01914
                                                       Otu01915 Otu01916
## CSI001
                 0 2.345326e-05
                                        0
                                                 0 0.0003752521
                                                                        0
## CSI012
                 0 2.414959e-04
                                        0
                                                 0 0.0008969848
                                                                        0
```

0

0

```
## CSI022
                0 1.721244e-04
                                     0
                                              0 0.000000000
                                                                   0
                                     0
                                                                   0
##
  CST044
                0 0.000000e+00
                                               0.000000000
                0 0.000000e+00
  CSI055
                                     0
                                              0 0.000000000
                                                                   0
  CSI065
                0 0.000000e+00
                                     0
                                               0.0000000000
                                                                   Λ
##
##
  CST076
                0 0.000000e+00
                                     0
                                               0.0001445337
                                                                    0
##
             Otu01917
                          Otu01918
                                     Otu01919
                                                  Otu01920 Otu01921
  CSI001 0.000000e+00 0.000000e+00 0.000000000 0.000000000
                                                                  0
  0
  0
                                                                  0
  CSI055 0.000000e+00 0.000000e+00 0.000129085 0.0003657408
                                                                  0
                                                                  0
   CSI076 0.000000e+00 0.000000e+00 0.000000000 0.0001156270
                                                                  0
                     Otu01923 Otu01924 Otu01925
##
         Otu01922
                                                  Otu01926 Otu01927
##
  CSI001
                0.000000000
                                    0
                                             0 0.00000e+00
                                                                  0
##
  CSI012
                0 0.00000000
                                    0
                                             0 0.00000e+00
                                                                  0
                                                                  0
##
  CSI022
                0 0.00000000
                                    0
                                             0 0.00000e+00
  CSI044
                  0.00000000
                                    0
                                             0 0.00000e+00
                                                                  0
  CSI055
                                                                  0
##
                0 0.000129085
                                    0
                                             0 6.45425e-05
##
  CSI065
                  0.000000000
                                    0
                                             0 0.00000e+00
                                                                  0
##
  CST076
                Λ
                  0.000000000
                                    0
                                             0 0.00000e+00
                                                                  0
                      Otu01929 Otu01930
                                           Otu01931 Otu01932 Otu01933
##
         Otu01928
## CSI001
                                                           0
                                                                   0
                0 3.517989e-04
                                     0.000000e+00
                                                           0
##
  CSI012
                0 2.587456e-04
                                     0 0.00000e+00
                                                                   0
                0 4.303111e-05
                                                           0
                                                                   0
##
  CSI022
                                     0 0.00000e+00
  CSI044
                0 0.000000e+00
                                     0 0.00000e+00
                                                           0
                                                                   0
  CSI055
                                                           0
                                                                   0
##
                0
                  0.000000e+00
                                     0
                                       0.000000e+00
                                                           0
##
  CSI065
                  0.000000e+00
                                     0
                                       0.000000e+00
                                                                   0
                                                           Λ
  CSI076
                0 0.000000e+00
                                     0 0.00000e+00
                                                                   0
##
##
         Otu01934
                  Otu01935
                              Otu01936 Otu01937 Otu01938
                                                             Otu01939
## CSI001
                0
                         0 0.00000e+00
                                              0
                                                       0 0.00000e+00
##
  CSI012
                0
                         0 0.000000e+00
                                              0
                                                       0 1.724971e-05
##
  CSI022
                0
                         0 0.00000e+00
                                              0
                                                       0 0.00000e+00
                0
                                              0
  CSI044
                         0 0.00000e+00
                                                       0 0.00000e+00
##
  CSI055
                0
                           0.000000e+00
                                              0
                                                        2.151417e-05
##
                         0 3.782005e-05
                                              0
##
  CST065
                0
                                                       0 0.00000e+00
##
  CSI076
                0
                         0 0.000000e+00
                                              0
                                                       0 8.672024e-05
##
             Otu01940
                          Otu01941
                                      Otu01942 Otu01943
                                                            Ot:1101944
  CSI001 2.345326e-05 0.000000e+00 7.035977e-05
                                                      0 3.517989e-04
  CSI012 2.587456e-04 0.000000e+00 1.552474e-04
                                                      0 1.207479e-04
  CSI022 8.606222e-05 0.000000e+00 2.581867e-04
                                                      0 2.797022e-04
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                      0 0.000000e+00
   CSI055 4.302833e-05 2.151417e-05 0.000000e+00
                                                      0 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                      0 0.000000e+00
  CSI076 2.312540e-04 0.000000e+00 0.000000e+00
                                                      0 1.734405e-04
##
         0tu01945
                     Otu01946 Otu01947 Otu01948 Otu01949
                                                            Otu01950
##
  CSI001
                0 0.00000000
                                    0
                                             0
                                                      0 4.690652e-05
  CSI012
                                             0
##
                0 0.00000000
                                    0
                                                      0 0.000000e+00
  CSI022
                0 0.000000000
                                    0
                                             0
                                                      0 0.000000e+00
  CSI044
                  0.00000000
                                    0
                                             0
                                                      0 0.000000e+00
##
                                    0
                                             0
##
  CSI055
                  0.000000000
                                                      0 5 378542e-04
                0
                                             0
##
  CSI065
                0 0.000000000
                                    0
                                                      0 7.564010e-05
##
  CSI076
                0 0.002370353
                                    0
                                             0
                                                      0 6.937619e-04
##
         Otu01951 Otu01952 Otu01953 Otu01954
                                                Otu01955 Otu01956 Otu01957
```

```
## CSI001
                  0
                            0
                                      0
                                                0 1.172663e-04
                                                                        0
                                                                                  0
  CSI012
                  0
                            0
                                                0 5.174912e-05
                                                                        0
                                                                                  0
##
                                      0
                                                0 0.00000e+00
  CSI022
                  0
                            0
                                      0
                                                                        0
                                                                                  0
  CSI044
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
##
   CSI055
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
##
   CSI065
                  0
                            0
                                                                        0
##
   CSI076
                  0
                                      0
                                                0 0.00000e+00
                                                                                  0
                                                                          Otu01964
##
          Otu01958
                    Otu01959
                              Otu01960
                                            Otu01961 Otu01962 Otu01963
##
  CSI001
                  0
                            0
                                      0 7.035977e-05
                                                              0
                                                                        0
                                                                                  0
                            0
                                                              0
                                                                        0
                                                                                  0
##
   CSI012
                  0
                                        1.724971e-05
   CSI022
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI044
                  0
                            0
                                                              0
                                                                        0
##
                                        0.000000e+00
##
   CSI055
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                                  0
##
   CSI065
                  0
                                                                        0
   CSI076
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                                  0
##
                                                                        0
##
          Otu01965 Otu01966
                                   Otu01967 Otu01968
                                                           Otu01969
                                                                         Otu01970
  CSI001
                                                    0 7.035977e-05 1.172663e-04
##
                  0
                            0 1.172663e-04
##
   CSI012
                  0
                            0 3.449941e-05
                                                    0 0.000000e+00 5.174912e-05
  CSI022
                  0
                              2.151556e-05
                                                    0 8.606222e-05 1.721244e-04
##
                            0
##
   CSI044
                  0
                              0.000000e+00
                                                      0.000000e+00 0.000000e+00
##
   CSI055
                  0
                            0
                              0.000000e+00
                                                      0.000000e+00 0.000000e+00
   CSI065
                              0.000000e+00
                                                      0.000000e+00 0.000000e+00
##
   CSI076
                                                      0.000000e+00 0.000000e+00
##
                  0
                            0 0.00000e+00
                                                    0
               Otu01971 Otu01972 Otu01973 Otu01974
##
                                                           Otu01975
                                                                         Ot:1101976
##
   CSI001 0.000000e+00
                                0
                                          0
                                                    0 7.035977e-05 0.0000000000
   CSI012 1.724971e-05
                                0
                                          0
                                                    0 2.414959e-04 0.0000000000
   CSI022 6.454667e-05
                                0
                                          0
                                                      2.151556e-05 0.0000000000
                                0
                                          0
   CSI044 0.000000e+00
                                                    0 0.000000e+00 0.0000000000
                                0
                                          0
   CSI055 0.000000e+00
                                                    0 0.000000e+00 0.0004517975
   CSI065 3.782005e-05
                                0
                                          0
                                                    0 0.000000e+00 0.0000000000
##
   CSI076 5.203214e-04
                                0
                                          0
                                                    0 0.000000e+00 0.0000000000
##
           Otu01977 Otu01978
                                Otu01979 Otu01980 Otu01981 Otu01982 Otu01983
##
  CSI001
                  0
                            0.00000000
                                                  0
                                                            0
                                                                      0
                                                                               0
  CSI012
                            0 0.00175947
                                                  0
                                                            0
                                                                      0
                                                                               0
##
                  0
   CSI022
                  0
                              0.0000000
                                                  0
                                                            0
                                                                      0
                                                                               0
                              0.00000000
                  0
                                                  0
                                                            0
                                                                      0
                                                                               0
##
  CSI044
                            0
##
  CSI055
                  0
                              0.00000000
                                                  0
                                                            0
                                                                      0
                                                                               0
##
  CSI065
                  0
                            0
                              0.00000000
                                                  0
                                                            Λ
                                                                      0
                                                                               0
                  0
                              0.0000000
                                                  0
                                                                      0
                                                                               0
##
   CSI076
                            0
                                                            0
##
                              Otu01986 Otu01987 Otu01988
          Otu01984 Otu01985
                                                                Ot:1101989
  CSI001
                  0
                            0
                                      0
                                                0
                                                          0 1.407195e-04
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0 5.174912e-05
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                  0
                            0
                                                0
   CSI044
                                      0
                                                          0 0.00000e+00
##
                            0
                                                0
   CSI055
                  0
                                      0
                                                          0 8.605667e-05
  CSI065
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
##
##
   CSI076
                  0
                            0
                                      0
                                                          0 2.890675e-05
##
               Otu01990 Otu01991 Otu01992
                                                 Otu01993 Otu01994
                                                                         Otu01995
   CSI001 1.172663e-04
                                0
                                          0 2.345326e-05
                                                                  0 0.00000e+00
   CSI012 1.724971e-05
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
                                0
   CSI022 2.151556e-05
                                            4.303111e-05
                                                                  0 0.00000e+00
                                          0
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
                                          0 0.000000e+00
## CSI055 0.000000e+00
                                0
                                                                  0 2.151417e-05
## CSI065 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 1.058961e-03
```

```
## CSI076 0.000000e+00
                               0
                                        0 0.00000e+00
                                                               0 2.601607e-04
              Otu01996 Otu01997
##
                                     Otu01998 Otu01999
                                                            Ot1102000 Ot1102001
                                                     0 0.000000e+00
## CSI001 1.641728e-04
                               0 1.876261e-04
                                                                            0
  CSI012 0.000000e+00
                               0 0.000000e+00
                                                     0 0.00000e+00
                                                                            0
## CSI022 0.000000e+00
                               0 0.000000e+00
                                                     0 0.00000e+00
                                                                            0
## CSI044 0.00000e+00
                               0 0.000000e+00
                                                     0 0.00000e+00
                                                                            0
  CSI055 0.000000e+00
                               0 0.000000e+00
                                                     0 2.151417e-05
                                                                            0
## CSI065 0.000000e+00
                               0 0.00000e+00
                                                     0 0.000000e+00
                                                                            0
  CSI076 0.000000e+00
                               0 2.890675e-05
                                                     0 0.000000e+00
                                                                            0
          Otu02002 Otu02003 Otu02004
                                          Otu02005 Otu02006 Otu02007
##
## CSI001
                 0
                          0
                                    0 0.000000000
                                                          0
                                                                    0
## CSI012
                           0
                                                          0
                                                                    0
                 0
                                    0 0.0000000000
## CSI022
                 0
                           0
                                    0.000000000
                                                          0
                                                                    0
                           0
                                                          0
## CSI044
                 0
                                    0 0.000000000
                                                                    0
## CSI055
                 0
                           0
                                    0.000000000
                                                          0
                                                                    0
## CSI065
                 0
                           0
                                    0 0.0001512802
                                                           0
                                                                    0
                 0
                          0
                                                          0
                                                                    0
##
  CSI076
                                    0 0.000000000
                                                  Otu02011
##
              Otu02008 Otu02009
                                     Otu02010
                                                                Otu02012
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI001 0.0000000000
## CSI012 0.0000000000
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI022 0.0003227333
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044 0.0000000000
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI055 0.0000000000
                               0 0.000000e+00 0.000000e+00 2.151417e-05
                               0 3.782005e-05 0.000000e+00 0.000000e+00
  CSI065 0.0000000000
  CSI076 0.0000000000
                               0 0.000000e+00 0.000000e+00 0.000000e+00
          Otu02013
                       Otu02014 Otu02015
                                              Otu02016
                                                          Otu02017 Otu02018
## CSI001
                 0 0.000000000
                                        0 3.987054e-04 0.00000e+00
                                                                           0
                                                                           0
  CSI012
                 0 0.0001552474
                                        0 0.000000e+00 0.00000e+00
## CSI022
                                        0 0.000000e+00 0.00000e+00
                                                                           0
                 0 0.0002581867
## CSI044
                 0 0.000000000
                                        0 0.000000e+00 0.00000e+00
                                                                           0
## CSI055
                 0 0.000000000
                                        0 0.000000e+00 6.45425e-05
                                                                           0
## CSI065
                 0 0.0000000000
                                        0 0.000000e+00 0.00000e+00
                                                                           0
  CSI076
                 0 0.0001445337
                                        0 3.757877e-04 0.00000e+00
                                                                           0
##
              Otu02019 Otu02020
                                     0 \pm 1102021
                                                  Otu02022 Otu02023
  CSI001 0.000000e+00
                               0 2.345326e-05 0.000000e+00
                                                                   0
                               0 5.174912e-05 1.724971e-05
                                                                   0
  CSI012 1.724971e-05
## CSI022 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
## CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
  CSI055 2.796842e-04
                               0 0.000000e+00 0.000000e+00
                                                                   0
                               0 0.000000e+00 3.782005e-05
                                                                   0
  CST065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
  CSI076 4.046945e-04
              Otu02024 Otu02025
                                     Otu02026
##
                                                  0t_{11}02027
                                                                0t_{11}02028
  CSI001 0.000000e+00
                               0 0.000000e+00 0.0002110793 0.000000e+00
  CSI012 1.724971e-05
                               0 0.000000e+00 0.0001034982 0.000000e+00
  CSI022 2.151556e-05
                               0 0.000000e+00 0.000000000 0.000000e+00
## CSI044 0.000000e+00
                               0 0.000000e+00 0.0000000000 3.943140e-05
  CSI055 2.366558e-03
                               0 4.302833e-05 0.0000000000 2.151417e-05
  CSI065 0.000000e+00
                               0 0.000000e+00 0.000000000 0.000000e+00
##
  CSI076 0.000000e+00
                               0 5.781349e-05 0.0000000000 2.890675e-05
##
              Otu02029
                           Otu02030 Otu02031
                                                  Otu02032 Otu02033
## CSI001 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                   0
## CSI012 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                   0
## CSI022 0.000000e+00 0.000000e+00
                                            0.000000e+00
                                                                   0
## CSI044 1.971570e-05 0.000000e+00
                                            0 1.971570e-05
                                                                   0
```

```
## CSI055 1.290850e-04 8.605667e-05
                                         0 0.00000e+00
                                                               0
  CSI065 0.000000e+00 1.134602e-03
                                                               0
                                         0 0.000000e+00
                                          0 2.890675e-05
  CSI076 2.890675e-05 8.672024e-05
                                                               0
##
             Otu02034
                          Otu02035
                                      0tu02036
                                                   Otu02037 Otu02038
  CSI001 0.0000000000 0.000000e+00 2.345326e-05 0.0000000000
  CSI012 0.0001552474 0.000000e+00 0.000000e+00 0.0000000000
                                                                   0
  CSI022 0.0000000000 0.000000e+00 2.366711e-04 0.0000000000
                                                                   0
  0
  0
  CSI065 0.0000000000 7.564010e-05 0.000000e+00 0.0009833214
                                                                   0
   CSI076 0.0000000000 0.000000e+00 0.000000e+00 0.0002312540
                                                                   0
             Otu02039 Otu02040 Otu02041 Otu02042
##
                                                    Otu02043 Otu02044
##
  CSI001 0.0000000000
                             0
                                      0
                                              0 0.000000e+00
                                                                    0
                             0
                                      0
                                                                    0
  CSI012 0.0000000000
                                              0 0.00000e+00
  CSI022 0.0000000000
                                      0
                                              0 0.000000e+00
                                                                    0
                             0
  CSI044 0.0000000000
                             0
                                     0
                                              0 0.00000e+00
                                                                    0
                             0
                                      0
                                                                    0
  CSI055 0.0000000000
                                                1.570534e-03
  CSI065 0.0000000000
                             0
                                      0
                                                0.000000e+00
                                                                    0
                                                                    0
##
  CST076 0.00000000000
                             0
                                      0
                                              0 1.156270e-04
         Otu02045 Otu02046
                              Otu02047
                                           0tu02048
                                                       Otu02049 Otu02050
##
  CSI001
                0
                         0 0.000000000 2.345326e-04 0.000000e+00
                                                                       0
## CSI012
                0
                         0 0.000000000 1.552474e-04 3.449941e-05
                                                                       0
## CSI022
                0
                         0 0.000000000 6.454667e-05 0.000000e+00
                                                                       0
                           0.00000000 0.000000e+00 0.000000e+00
                                                                       0
  CSI044
                0
                                                                       0
##
  CST055
                0
                           0.00000000 0.000000e+00 0.000000e+00
  CSI065
                Λ
                           0.00000000 0.000000e+00 0.000000e+00
                                                                       0
  CSI076
                0
                           0.000000000 0.000000e+00 0.000000e+00
                                                                       0
##
##
         Otu02051 Otu02052
                           Otu02053 Otu02054
                                                Otu02055
                                                             Otu02056
  CSI001
                0
                         0
                                           0 2.345326e-05 2.345326e-05
##
                                  0
  CSI012
                0
                         0
                                  0
                                           0 0.000000e+00 0.000000e+00
##
  CSI022
                0
                         0
                                  0
                                           0 0.000000e+00 0.000000e+00
  CSI044
                0
                         0
                                  0
                                           0 0.000000e+00 0.000000e+00
                         0
  CSI055
                0
                                  0
                                           0 4.302833e-05 0.000000e+00
                         0
  CSI065
                0
                                  0
                                           0 0.000000e+00 0.000000e+00
##
                0
                         0
                                           0 5.781349e-05 0.000000e+00
##
  CSI076
                                                        Otu02061 Otu02062
             Otu02057 Otu02058
                                   Otu02059 Otu02060
##
  CSI001 8.443173e-04
                             0 0.0001172663
                                                  0 0.000000000
                                                                        0
  CSI012 1.724971e-05
                             0 0.0002069965
                                                  0 0.000000000
                                                                        0
  CSI022 0.000000e+00
                                                  0 0.000000000
                             0 0.000000000
  CSI044 0.000000e+00
                             0 0.000000000
                                                  0 0.000000000
                                                                        0
  CSI055 4.302833e-05
                             0 0.000000000
                                                  0 0.000000000
                                                                        0
  CSI065 0.000000e+00
                             0 0.000000000
                                                  0 0.000000000
                                                                        0
  CSI076 0.000000e+00
                             0 0.000000000
                                                  0 0.000000000
                                                                        0
             Otu02063 Otu02064
##
                                               Otu02066
                                                            Otu02067
                                   0tu02065
  CSI001 0.000000e+00
                             0 0.000000e+00 7.035977e-05 9.381303e-05
  CSI012 3.449941e-05
                             0 0.000000e+00 6.899883e-05 0.000000e+00
  CSI022 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI076 5.781349e-05
                              1.156270e-04 0.000000e+00 0.000000e+00
##
##
         Ot:1102068
                     Otu02069
                                  Otu02070
                                              Otu02071
## CSI001
                ## CSI012
                0.00000e+00 0.000000000 0.000000e+00 0.000000000
```

```
## CSI022
                 0 1.97157e-05 0.0000000000 0.000000e+00 0.0000000000
##
  CST044
  CSI055
                 0 0.00000e+00 0.0000000000 2.151417e-05 0.0000000000
  CSI065
                   0.00000e+00 0.000000000 0.000000e+00 0.000000000
##
##
   CST076
                   0.00000e+00 0.0000000000 8.672024e-05 0.0000000000
          0tu02073
                       Otu02074
                                     Otu02075 Otu02076
                                                            Otu02077 Otu02078
##
## CSI001
                 0 2.345326e-05 0.000000e+00
                                                     0 0.00000e+00
                                                                            0
## CSI012
                 0 0.000000e+00 3.449941e-05
                                                     0 1.207479e-04
                                                                            0
  CSI022
                 0 1.075778e-04 0.000000e+00
                                                     0 2.151556e-05
                                                                            O
##
  CSI044
                 0 0.000000e+00 0.000000e+00
                                                     0 0.000000e+00
                                                                            0
  CSI055
                 0 0.000000e+00 2.151417e-05
                                                     0 0.00000e+00
                                                                            0
                                                                            0
##
  CSI065
                 0 0.000000e+00 0.000000e+00
                                                     0 0.00000e+00
##
   CSI076
                 0 0.000000e+00 3.179742e-04
                                                     0 0.000000e+00
                                                                            0
##
          Otu02079 Otu02080 Otu02081
                                          Otu02082 Otu02083 Otu02084 Otu02085
## CSI001
                           0
                                    0 0.000000e+00
                                                           0
                                                                    0
                                                                             0
                 0
##
  CSI012
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                    0
                                                                             0
                                                                             0
##
  CSI022
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                    0
   CSI044
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                    0
                                                                             0
  CSI055
                 0
                           0
                                                           0
                                                                             0
##
                                    0 3.657408e-04
                                                                    0
##
  CSI065
                 0
                           0
                                    0 0.00000e+00
                                                           0
                                                                    0
                                                                             0
##
  CST076
                 Ω
                           0
                                     2.890675e-05
                                                           0
                                                                    0
                                                                             O
                                    0
                           Otu02087
                                         Otu02088 Otu02089 Otu02090
##
              Ot:1102086
                                                          0
  CSI001 2.345326e-05 4.690652e-05 0.000000e+00
                                                                   0
   CSI012 3.449941e-05 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          Λ
                                                                   0
   CSI055 0.000000e+00 0.000000e+00 2.151417e-05
                                                          0
                                                                   0
                                                                   0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
   CSI076 2.601607e-04 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
##
##
              Otu02091
                           Otu02092
                                         Otu02093 Otu02094
                                                                Otu02095
##
   CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
   CSI012 0.000000e+00 1.724971e-05 0.000000e+00
                                                          0 0.000000e+00
   CSI022 0.000000e+00 2.151556e-05 0.000000e+00
                                                          0 2.151556e-05
  CSI044 9.857850e-05 0.000000e+00 1.971570e-05
                                                          0 0.000000e+00
   CSI055 0.000000e+00 6.454250e-05 0.000000e+00
                                                          0 0.000000e+00
   CSI065 1.172422e-03 0.000000e+00 0.000000e+00
                                                          0.0.000000e+00
   CSI076 2.312540e-04 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
##
          Otu02096 Otu02097
                                 Otu02098
                                              Otu02099
                                                            0 \pm 1102100
## CSI001
                 0
                           0 0.000000e+00 0.000000e+00 2.345326e-05
  CSI012
                 0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
                           0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI022
                 0
  CSI044
                 0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
##
  CSI055
                 0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
                 0
                           0 0.000000e+00 3.782005e-05 0.000000e+00
##
##
  CSI076
                 0
                           0 0.000000e+00 2.890675e-05 0.000000e+00
              Otu02101
                           Otu02102 Otu02103 Otu02104 Otu02105
##
                                                                     Otu02106
  CSI001 2.579858e-04 2.345326e-05
                                            0
                                                     0
                                                               0 9.381303e-05
                                            0
                                                     0
   CSI012 5.174912e-05 0.000000e+00
                                                               0 0.00000e+00
  CSI022 3.227333e-04 0.000000e+00
                                            0
                                                     0
                                                               0 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                            0
                                                     0
                                                               0 0.00000e+00
   CSI055 0.000000e+00 0.000000e+00
                                            0
                                                     0
                                                               0 2.151417e-05
   CSI065 0.000000e+00 0.000000e+00
                                            0
                                                     0
                                                               0 3.782005e-05
##
  CSI076 0.000000e+00 1.156270e-04
                                            0
                                                               0 1.445337e-04
                                                     0
##
          Otu02107 Otu02108
                                Otu02109 Otu02110
                                                       Otu02111 Otu02112
```

```
## CSI001
                  0
                           0 1.876261e-04
                                                  0 0.000000000
                                                                          0
  CST012
                  0
                                                  0 0.000000000
                                                                          0
##
                           0 3.449941e-05
  CSI022
                           0 0.000000e+00
                  0
                                                  0 0.000000000
                                                                          0
  CSI044
                  0
                             0.000000e+00
                                                    0.0000000000
                                                                          0
##
                           0
                                                  \cap
##
   CSI055
                  0
                           0
                             0.000000e+00
                                                    0.000000000
                                                                          0
                  Λ
                                                                          0
##
  CSI065
                           0 0.00000e+00
                                                  0 0.000000000
##
   CSI076
                  0
                           0 2.890675e-05
                                                  0 0.000000000
                                                                          0
##
          Otu02113
                        Otu02114
                                      Ot:1102115
                                                   Ot:1102116
                                                                 Ot:1102117
##
  CSI001
                  0 0.0003752521 0.000000e+00 0.000000e+00 7.035977e-05
##
   CSI012
                   0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
   CSI022
                  0 0.000000000 0.000000e+00 2.151556e-05 0.000000e+00
   CSI044
                  0 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
##
##
   CSI055
                  0.0000000000 2.151417e-05 0.000000e+00 0.000000e+00
##
   CSI065
                  0 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
   CSI076
                  0 0.000000000 0.000000e+00 0.000000e+00 5.781349e-05
##
##
              Otu02118
                            Otu02119 Otu02120 Otu02121 Otu02122 Otu02123
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
##
   CSI012 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI022 0.000000e+00 2.151556e-05
                                                                0
                                                                          0
                                             0
                                                      0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
   CSI055 2.151417e-05 0.000000e+00
                                             0
                                                      Λ
                                                                0
                                                                          0
   CSI065 1.891003e-04 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI076 0.000000e+00 0.000000e+00
                                                                0
##
                                             0
                                                       0
                                                                          0
##
          Otu02124
                        Otu02125 Otu02126
                                               Otu02127
                                                             Otu02128
## CSI001
                  0 0.0002345326
                                         0 0.000000e+00 0.000000e+00
   CSI012
                  0 0.0004484924
                                         0 0.000000e+00 0.000000e+00
  CSI022
                  0 0.000000000
                                         0 0.000000e+00 0.000000e+00
##
##
   CSI044
                  0 0.000000000
                                         0 0.000000e+00 0.000000e+00
                                         0 8.605667e-05 0.000000e+00
##
   CSI055
                  0 0.0000000000
  CSI065
                  0.0000000000
                                         0 0.000000e+00 0.000000e+00
##
   CSI076
                  0 0.000000000
                                         0 7.226687e-04 2.890675e-05
##
              Otu02129 Otu02130 Otu02131
                                               Otu02132 Otu02133 Otu02134
   CSI001 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
   CSI012 0.000000e+00
                                                                0
                                                                          0
                               0
                                         0 0.00000e+00
   CSI022 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
   CSI044 0.000000e+00
                               0
                                                                0
                                                                          0
                                         0 0.00000e+00
   CSI055 0.000000e+00
                               0
                                          1.721133e-04
                                                                0
                                                                          0
  CSI065 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0
                                                                          0
##
   CSI076 8.672024e-05
                                         0 0.000000e+00
                                                                0
##
                                                                          0
##
          Otu02135 Otu02136
                                               Otu02138 Otu02139
                                 0tu02137
                                                                       Ot:1102140
  CSI001
                  0
                           0 2.345326e-05 4.690652e-05
                                                                0 0.000000000
## CSI012
                  0
                           0 0.000000e+00 1.724971e-05
                                                                0 0.000000000
##
  CSI022
                  0
                           Λ
                             0.000000e+00 0.000000e+00
                                                                0 0.000000000
                  0
                             0.000000e+00 0.000000e+00
##
  CSI044
                                                                0 0.000000000
  CSI055
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.0000645425
## CSI065
                  0
                             0.000000e+00 0.000000e+00
                                                                0 0.000000000
##
   CSI076
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.000000000
##
          Otu02141 Otu02142
                             0tu02143
                                           Otu02144
                                                         Otu02145 Otu02146
## CSI001
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
  CSI012
                  0
                           0
                                     0 3.104947e-04 0.000000e+00
                                                                          0
                  0
                           0
                                     0 2.366711e-04 0.000000e+00
                                                                          0
##
  CSI022
## CSI044
                  0
                           0
                                     0 1.380099e-04 0.000000e+00
                                                                          0
## CSI055
                  0
                           0
                                     0 2.151417e-05 0.000000e+00
                                                                          0
## CSI065
                  0
                           0
                                     0 2.269203e-04 0.000000e+00
                                                                          0
```

```
0 0.000000e+00 0.000000e+00
## CSI076
                 0
                                                                        0
                                                  Otu02150 Otu02151 Otu02152
##
                           Otu02148 Otu02149
              0t1102147
## CSI001 1.876261e-04 0.000000e+00
                                            0 0.0001172663
                                                                  0
                                                                            0
## CSI012 1.724971e-05 0.000000e+00
                                            0 0.000000000
                                                                   Λ
                                                                            0
## CSI022 0.000000e+00 0.000000e+00
                                            0 0.000000000
                                                                   0
                                                                            0
## CSI044 0.000000e+00 0.000000e+00
                                                                   Λ
                                            0 0.000000000
                                                                            0
## CSI055 0.000000e+00 0.000000e+00
                                            0 0.000000000
                                                                   0
                                                                            0
## CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000000
                                                                   0
                                                                            0
  CSI076 0.000000e+00 0.000000e+00
                                            0 0.000000000
                                                                   Λ
              Otu02153 Otu02154
##
                                    Otu02155 Otu02156 Otu02157 Otu02158
## CSI001 9.381303e-05
                              0 7.035977e-05
                                                     0
                                                              0
                                                                        0
                                                              0
                                                                        0
## CSI012 8.624853e-05
                              0 1.724971e-05
                                                     0
## CSI022 0.000000e+00
                              0 2.151556e-05
                                                     0
                                                              0
                                                                        0
                                                              0
## CSI044 0.000000e+00
                              0 5.520396e-04
                                                     0
                                                                        0
## CSI055 0.000000e+00
                                                     0
                                                              0
                                                                        0
                              0 0.00000e+00
## CSI065 0.000000e+00
                              0 7.942211e-04
                                                     0
                                                               0
                                                                        0
                              0 0.000000e+00
                                                     0
                                                               0
  CSI076 0.000000e+00
                                                                        0
##
          Otu02159
                       Otu02160
                                    Otu02161 Otu02162 Otu02163
                                                                     Otu02164
                 0 0.000000e+00 0.000000e+00
## CST001
                                                     0
                                                              0 2.345326e-05
## CSI012
                 0 0.000000e+00 0.000000e+00
                                                     0
                                                              0 1.034982e-04
## CSI022
                 0 0.000000e+00 0.000000e+00
                                                     Λ
                                                              0 2.151556e-05
                 0 0.000000e+00 0.000000e+00
                                                     0
## CST044
                                                              0 0.000000e+00
                 0 4.302833e-05 0.000000e+00
                                                     0
## CST055
                                                              0 0.000000e+00
## CSI065
                 0 0.000000e+00 0.000000e+00
                                                     0
                                                              0 0.000000e+00
## CSI076
                 0 4.336012e-04 0.000000e+00
                                                     Ω
                                                              0 0.000000e+00
              Otu02165 Otu02166 Otu02167 Otu02168 Otu02169 Otu02170
## CSI001 0.000000e+00
                              0
                                                 0
                                                                    0
                                        0
                                                          0
## CSI012 8.107362e-04
                              0
                                        0
                                                 0
                                                          0
                                                                    0
## CSI022 2.151556e-05
                              0
                                        0
                                                 0
                                                          0
                                                                    0
## CSI044 0.000000e+00
                              0
                                        0
                                                 0
                                                          0
                                                                    0
## CSI055 0.000000e+00
                              0
                                        0
                                                 0
                                                          0
                                                                    0
  CSI065 0.000000e+00
                              0
                                        0
                                                 0
                                                          0
                                                                    0
   CSI076 0.000000e+00
                              0
                                        0
                                                          0
                                                                    0
                           Otu02172 Otu02173
##
              Otu02171
                                                  Otu02174
                                                               Ot:1102175
## CSI001 0.000000e+00 0.000000e+00
                                     0 0.000000e+00 0.000000e+00
                                            0 1.724971e-05 0.000000e+00
## CSI012 1.724971e-05 0.000000e+00
## CSI022 0.000000e+00 4.303111e-05
                                            0 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00
                                            0 6.454250e-05 0.000000e+00
  CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00 0.000000e+00
              Otu02176 Otu02177
                                    Otu02178
                                                  Otu02179
##
                                                               0t_{11}02180
## CSI001 0.0000000000
                              0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI012 0.0000000000
                              0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI022 0.0000000000
                              0 0.000000e+00 0.000000e+00 0.000000e+00
                              0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044 0.000000000
  CSI055 0.0000000000
                              0 0.000000e+00 0.000000e+00 2.151417e-05
  CSI065 0.0001512802
                              0 3.782005e-05 0.000000e+00 0.000000e+00
  CST076 0.00000000000
                              0 0.000000e+00 0.000000e+00 0.000000e+00
          Otu02181 Otu02182 Otu02183 Otu02184 Otu02185 Otu02186 Otu02187
##
## CSI001
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0
                                                                         0
                          0
                                    0
                                                               0
## CSI012
                 0
                                             0
                                                      0
                                                                         0
## CSI022
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0
                                                                         0
## CSI044
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0
                                                                         0
```

```
## CSI055
                 0
                           0
                                    0
                                                       0
                                                                0
                                                                          0
  CSI065
                           0
                                             0
                                                       0
                                                                0
                                                                          0
##
                 0
                                    0
##
  CSI076
                 0
                           0
                                    0
                                             0
                                                       0
                                                                0
                                                                          0
##
              Otu02188
                            Otu02189 Otu02190
                                                   Otu02191
                                                                Otu02192
  CSI001 7.035977e-05 0.0000000000
                                            0 0.000000e+00 0.000000e+00
  CSI012 0.000000e+00 0.0000000000
                                            0 0.000000e+00 0.000000e+00
   CSI022 6.454667e-05 0.0000000000
                                            0 4.303111e-05 0.000000e+00
  CSI044 0.000000e+00 0.0000000000
                                            0 0.000000e+00 0.000000e+00
   CSI055 2.151417e-05 0.0001505992
                                            0 0.000000e+00 6.454250e-04
   CSI065 7.564010e-05 0.0000000000
                                            0 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.0000000000
                                            0 0.000000e+00 8.672024e-04
##
              Otu02193 Otu02194
                                     Otu02195 Otu02196
                                                            Otu02197
##
  CSI001 0.000000e+00
                               0.000000000
                                                      0 2.345326e-05
   CSI012 0.000000e+00
                               0 0.000000000
                                                      0 0.00000e+00
  CSI022 0.000000e+00
                               0 0.000000000
                                                      0 0.000000e+00
   CSI044 0.000000e+00
                               0 0.000000000
                                                      0 0.00000e+00
   CSI055 1.290850e-04
                               0 0.000000000
                                                      0 0.00000e+00
   CSI065 0.000000e+00
                               0 0.000000000
                                                      0 0.00000e+00
##
   CSI076 1.734405e-04
                               0.0003757877
                                                      0 0.000000e+00
##
              Otu02198 Otu02199 Otu02200
                                              0tu02201
                                                            Otu02202 Otu02203
##
  CSI001 0.000000e+00
                               0
                                        0 1.407195e-04 0.000000e+00
                                                                             0
  CSI012 0.000000e+00
                               0
                                        0 8.624853e-05 0.000000e+00
                                                                             0
  CSI022 0.000000e+00
                                        0 0.000000e+00 2.151556e-05
                               0
                                                                             0
   CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
  CSI055 2.151417e-05
                               0
                                        0 0.000000e+00 2.151417e-05
                                                                             0
   CSI065 0.000000e+00
                               0
                                          0.000000e+00 1.512802e-04
                                                                             0
   CSI076 2.312540e-04
                               0
                                          0.000000e+00 0.000000e+00
                                                                             0
##
                                        0
##
          Otu02204
                       Otu02205 Otu02206
                                          Otu02207
                                                        Otu02208
                                                                     Otu02209
  CSI001
                                                  0 0.000000e+00 0.000000e+00
##
                 0 0.00000e+00
                                        0
  CSI012
                 0 1.724971e-05
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
  CSI022
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
  CSI044
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00 0.000000e+00
   CSI055
                 0 2.151417e-05
                                        0
                                                  0 0.000000e+00 4.302833e-05
  CSI065
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
                 0 0.00000e+00
                                        0
                                                  0 5.781349e-05 0.000000e+00
##
   CSI076
                           Otu02211 Otu02212
                                                  Otu02213 Otu02214
##
              Ot:1102210
  CSI001 0.0000000000 0.000000000
                                           0 0.00000e+00
                                                                  0
  CSI012 0.0000000000 0.000000000
                                           0 1.724971e-05
                                                                  0
   CSI022 0.0000000000 0.000000000
                                                                  0
                                           0 4.303111e-05
  CSI044 0.0000000000 0.000000000
                                                                  0
                                           0 0.00000e+00
                                                                  0
   CSI055 0.0003227125 0.001355393
                                           0 0.00000e+00
   CSI065 0.000000000 0.000000000
                                                                  0
                                           0 0.000000e+00
##
   CSI076 0.0000000000 0.000000000
                                            0 0.000000e+00
                                                                  0
              Otu02215 Otu02216 Otu02217
##
                                                            Otu02219
                                              0tu02218
  CSI001 0.000000e+00
                               0
                                        0 0.000000000 0.000000e+00
  CSI012 0.000000e+00
                               0
                                        0 0.0005002415 1.724971e-05
   CSI022 0.000000e+00
                               0
                                        0 0.000000000 0.000000e+00
   CSI044 0.000000e+00
                               0
                                        0 0.000000000 0.000000e+00
  CSI055 1.290850e-04
                               0
                                          0.0000000000 0.000000e+00
   CSI065 1.891003e-04
                               0
                                          0.000000000 0.000000e+00
##
                               0
                                        0 0.0000000000 2.890675e-05
##
   CSI076 1.156270e-04
##
              Otu02220 Otu02221 Otu02222 Otu02223
                                                        Otu02224 Otu02225
## CSI001 7.035977e-05
                               0
                                        0
                                                  0.000000e+00
                                                                         0
## CSI012 1.724971e-05
                               0
                                        0
                                                  0 3.449941e-05
                                                                         0
```

```
## CSI022 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                         0
  CSI044 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                         0
                               0
   CSI055 0.000000e+00
                               0
                                         0
                                                  0 8.605667e-05
                                                                         0
   CSI065 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                         0
                                                  0 0.000000e+00
##
   CSI076 0.000000e+00
                               0
                                         0
                                                                         0
          Otu02226
                                     Otu02228
##
                        0tu02227
                                                   Ot:1102229
                                                                 Ot:1102230
                 0 4.690652e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI001
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI012
   CSI022
                 0 2.366711e-04 2.151556e-05 0.000000e+00 0.000000e+00
##
   CSI044
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055
                  0 0.000000e+00 0.000000e+00 4.302833e-05 0.000000e+00
                  0 0.000000e+00 0.000000e+00 1.134602e-04 0.000000e+00
##
   CSI065
##
   CSI076
                  0.000000e+00.000000e+00.2.890675e-05.8.672024e-05
              0tu02231
                                          Otu02233 Otu02234 Otu02235 Otu02236
##
                            Otu02232
   CSI001 0.000000e+00 7.035977e-05 0.000000e+00
                                                           0
                                                                    0
                                                                              0
##
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
                                                                              0
   CSI022 4.303111e-05 0.000000e+00 0.000000e+00
                                                                    0
                                                           0
                                                                              0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
   CSI055 0.000000e+00 6.454250e-05 6.454250e-05
                                                                    0
                                                           0
                                                                              0
   CSI065 0.000000e+00 0.000000e+00 2.647404e-04
                                                           0
                                                                    0
                                                                              0
##
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
                                                                              0
          Otu02237 Otu02238 Otu02239 Otu02240
##
                                                    Otu02241 Otu02242
## CSI001
                           0
                                    0
                 0
                                              0 0.00000e+00
                                                                     0
##
   CSI012
                 0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
## CSI022
                 0
                           0
                                     0
                                              0.0.000000e+00
                                                                     0
   CSI044
                 0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
  CSI055
                 0
                           0
                                    0
                                                                     0
##
                                              0 0.000000e+00
                           0
##
   CSI065
                 0
                                    0
                                              0 0.00000e+00
                                                                     0
                           0
                                    0
                                                                     0
##
   CSI076
                 0
                                              0 0.00000e+00
##
             Otu02243 Otu02244 Otu02245
                                              Otu02246 Otu02247
                                                                     Otu02248
##
   CSI001 0.000000000
                              0
                                        0 0.000000000
                                                               0 0.00000e+00
   CSI012 0.000000000
                              0
                                        0.000000000
                                                               0 1.724971e-05
   CSI022 0.000000000
                              0
                                         0.000000000
                                                               0 0.00000e+00
                              0
   CSI044 0.000000000
                                         0.000000000
                                                               0 0.00000e+00
   CSI055 0.000000000
                              0
                                          0.0001721133
                                                                 0.000000e+00
   CSI065 0.000000000
                              0
##
                                        0
                                         0.000000000
                                                               0.000000e+00
##
   CSI076 0.000000000
                              0
                                        0
                                         0.000000000
                                                               0 0.00000e+00
##
              Otu02249 Otu02250 Otu02251
                                                             Otu02253 Otu02254
                                               Ot:1102252
                                          0.000000e+00 0.000000e+00
   CSI001 4.690652e-05
                               0
                                                                              0
                                         0 0.000000e+00 0.000000e+00
   CSI012 8.624853e-05
                               0
                                                                              0
   CSI022 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
   CSI044 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
   CSI055 0.000000e+00
                               0
                                         0 2.151417e-05 0.000000e+00
                                                                              0
                               0
   CSI065 0.000000e+00
                                          7.564010e-05 0.000000e+00
                                                                              0
                               0
   CSI076 0.000000e+00
                                         0 5.781349e-05 0.000000e+00
                                                                              0
##
              Otu02255 Otu02256 Otu02257
                                               Otu02258
                                                             Otu02259
   CSI001 2.345326e-05
                               0
                                         0 4.690652e-05 7.035977e-05
                               0
   CSI012 3.794935e-04
                                         0 0.000000e+00 8.624853e-05
   CSI022 1.075778e-04
                               0
                                         0 0.000000e+00 6.454667e-05
   CSI044 0.000000e+00
                               0
                                          0.000000e+00 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
   CSI065 0.000000e+00
                               0
                                         0 0.000000e+00 3.782005e-05
##
  CSI076 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
##
              Otu02260
                            Otu02261 Otu02262
                                                   Otu02263 Otu02264
```

```
## CSI001 0.000000e+00 0.000000e+00
                                          0 0.00000e+00
                                                                0
  CSI012 1.724971e-04 0.000000e+00
                                          0 0.00000e+00
                                                                0
  CSI022 6.454667e-05 0.000000e+00
                                          0 0.00000e+00
                                                                0
  CSI044 0.000000e+00 0.000000e+00
                                          0 0.000000e+00
                                                                0
  CSI055 0.000000e+00 8.605667e-05
                                          0 2.796842e-04
                                                                0
  CSI065 0.000000e+00 0.000000e+00
                                          0 3.782005e-05
                                                                0
                                                                0
  CSI076 0.000000e+00 5.781349e-04
                                          0 0.00000e+00
                                                    Otu02268 Otu02269
##
             Ot:1102265
                          Ot:1102266
                                       Otu02267
  CSI001 2.345326e-05 0.0000000000 0.00000e+00 0.000000000
                                                                    0
  0
  CSI022 5.809200e-04 0.0000000000 0.000000e+00 0.0000000000
                                                                    0
  0
   CSI055 0.000000e+00 0.0003442267 0.000000e+00 0.0000000000
                                                                    0
                                                                    0
   CSI076 5.781349e-05 0.0000000000 2.890675e-05 0.0000000000
                                                                    0
##
          Otu02270
                      Otu02271
                                   Otu02272 Otu02273 Otu02274 Otu02275
  CSI001
                                                            0
##
                0 5.628782e-04 0.000000e+00
                                                   0
                                                                     0
  CSI012
                0 6.899883e-05 0.000000e+00
                                                   0
                                                            0
                                                                     0
  CSI022
                0 2.151556e-05 0.000000e+00
                                                            0
                                                                     0
                                                   0
##
  CSI044
                0 0.000000e+00 0.000000e+00
                                                   0
                                                            0
                                                                     0
##
  CST055
                0 0.000000e+00 2.151417e-05
                                                   Λ
                                                            0
                                                                     0
                0 0.000000e+00 0.000000e+00
                                                            0
##
  CST065
                                                   0
                                                                     0
                0 5.781349e-05 0.000000e+00
##
  CSI076
                                                   0
                                                            0
                                                                     0
                  Otu02277 Otu02278 Otu02279
##
         Otu02276
                                                Otu02280
                                                             Ot:102281
## CSI001
                0
                         0
                                  0
                                           0 0.00000e+00 2.110793e-04
  CSI012
                0
                         0
                                  0
                                           0 0.00000e+00 1.724971e-05
  CSI022
                0
                         0
                                  0
                                           0 0.00000e+00 2.151556e-05
##
##
  CSI044
                0
                         0
                                  0
                                           0 0.00000e+00 0.000000e+00
                0
                         0
                                  0
                                           0 6.45425e-05 6.884533e-04
##
  CSI055
##
  CSI065
                0
                         0
                                  0
                                           0 0.00000e+00 0.000000e+00
##
  CSI076
                0
                         0
                                  0
                                           0 0.00000e+00 0.000000e+00
##
             Ot.1102282
                          Otu02283
                                       Otu02284 Otu02285
                                                             0t.1102286
  CSI001 0.000000e+00 0.000000e+00 7.035977e-05
                                                       0 2.345326e-05
  CSI012 0.000000e+00 1.724971e-05 0.000000e+00
                                                       0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                       0.0.000000e+00
  CSI055 1.936275e-04 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
  CSI065 3.782005e-05 0.000000e+00 0.000000e+00
                                                       0.0.000000e+00
  CSI076 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                       0.000000e+00
                               Otu02289 Otu02290 Otu02291 Otu02292
          Otu02287 Otu02288
##
## CSI001
                0
                         0 0.000000e+00
                                               0
                                                        0
                                                                 0
## CSI012
                0
                         0 1.724971e-05
                                               0
                                                        0
                                                                 0
  CSI022
                0
                         0 4.303111e-05
                                               0
                                                        0
                                                                 0
                                               0
                                                        0
                0
                         0 0.000000e+00
                                                                 0
##
  CSI044
  CSI055
                0
                         0 2.151417e-04
                                               0
                                                        0
                                                                 0
## CSI065
                                               0
                                                        0
                                                                 0
                0
                         0 0.00000e+00
##
  CSI076
                0
                         0 0.00000e+00
                                               0
                                                        0
                                                                 0
##
             Otu02293 Otu02294 Otu02295
                                            Otu02296 Otu02297 Otu02298
  CSI001 2.110793e-04
                             0
                                      0.0.000000e+00
                                                            0
                                                                     0
  CSI012 5.174912e-05
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
                             0
                                                            0
                                                                     0
  CSI022 2.151556e-05
                                      0 0.00000e+00
## CSI044 0.000000e+00
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
## CSI055 0.000000e+00
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
## CSI065 0.000000e+00
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
```

```
## CSI076 0.000000e+00
                                        0 5.781349e-05
                                                                        0
          Otu02299 Otu02300
                                 Ot:1102301
                                              Ot:1102302
##
                                                            Ot1102303 Ot1102304
## CSI001
                 0
                          0 0.000000000 2.345326e-05 0.0000000000
                                                                             0
## CSI012
                 Ω
                           0 0.000000000 1.552474e-04 0.0000000000
                                                                             0
## CSI022
                 0
                           0 0.000000000 1.075778e-04 0.0000000000
                                                                             0
                 Ω
                           0 0.000000000 0.000000e+00 0.0000000000
## CST044
                                                                             0
                           0 0.000000000 0.000000e+00 0.0001936275
  CSI055
                 0
                                                                             0
## CSI065
                 0
                           0 0.000000000 0.000000e+00 0.0000000000
                                                                            0
## CSI076
                 0
                           0 0.0005492282 0.000000e+00 0.0000000000
                                                                             0
                            Otu02306 Otu02307
##
              Otu02305
                                                  Otu02308 Otu02309
  CSI001 0.0000000000 4.690652e-05
                                            0 7.035977e-05
                                                                   0
  CSI012 0.0000000000 3.449941e-05
                                            0 0.000000e+00
                                                                   0
  CSI022 0.0000000000 0.000000e+00
                                            0 6.454667e-05
                                                                   0
   CSI044 0.0000000000 0.000000e+00
                                            0 0.00000e+00
                                                                   0
  CSI055 0.0009466234 0.000000e+00
                                            0 1.505992e-04
                                                                   0
   CSI065 0.0000756401 0.000000e+00
                                            0 6.051208e-04
                                                                   0
  CSI076 0.0000000000 0.000000e+00
                                            0 5.781349e-05
                                                                   0
                                                       Otu02314 Otu02315
##
              Otu02310 Otu02311 Otu02312 Otu02313
## CSI001 0.000000e+00
                               0
                                        0
                                                 0 0.000000e+00
                                                                        0
## CSI012 1.724971e-05
                               0
                                        0
                                                 0 3.449941e-05
                                                                        0
  CSI022 0.000000e+00
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
## CSI044 0.000000e+00
                               0
                                        0
                                                 0.000000e+00
                                                                        0
## CSI055 2.151417e-05
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
  CSI065 0.000000e+00
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
  CSI076 3.179742e-04
                                        0
                                                 0 0.00000e+00
                                                                        0
##
          Otu02316 Otu02317
                                 Otu02318 Otu02319
                                                       Otu02320 Otu02321
                          0 0.000000000
## CSI001
                 0
                                                 0 0.000000e+00
                                                                        0
## CSI012
                 0
                           0 0.000000000
                                                 0 6.899883e-05
                                                                        0
## CSI022
                 0
                                                 0 0.000000e+00
                                                                        0
                           0 0.000000000
## CSI044
                 0
                           0 0.000000000
                                                 0 0.00000e+00
                                                                        0
## CSI055
                 0
                           0 0.000000000
                                                 0 2.151417e-05
                                                                        0
##
  CSI065
                 0
                          0 0.000000000
                                                 0 0.00000e+00
                                                                        0
##
   CSI076
                 0
                           0 0.000000000
                                                 0 5.781349e-05
                                                                        0
          Otu02322
##
                       Otu02323 Otu02324
                                              Otu02325 Otu02326
                                                                     Otu02327
  CSI001
                 0 3.987054e-04
                                        0 4.690652e-05
                                                               0 0.00000e+00
##
  CSI012
                 0 1.724971e-05
##
                                        0 5.174912e-05
                                                               0 0.000000e+00
  CSI022
                 0 0.00000e+00
                                        0 2.151556e-05
                                                               0 0.000000e+00
## CSI044
                 0 0.000000e+00
                                        0 0.000000e+00
                                                               0.0.000000e+00
                                        0 0.000000e+00
  CST055
                 0 0.000000e+00
                                                               0 8.175383e-04
##
  CST065
                 0.000000e+00
                                        0 0.00000e+00
                                                               0.0.000000e+00
  CST076
                 0 0.000000e+00
                                        0 0.00000e+00
                                                               0 8.672024e-05
##
                                         Otu02330
                                                       Otu02331 Otu02332
              Ot:1102328
                            0t_{11}02329
  CSI001 2.345326e-05 0.0001641728 0.000000e+00 2.345326e-05
                                                                       0
  CSI012 3.449941e-05 0.0001034982 6.899883e-05 2.587456e-04
                                                                       0
   CSI022 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
                                                                       0
   CSI044 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
                                                                       0
   CSI055 0.000000e+00 0.0000000000 0.000000e+00 2.151417e-05
                                                                       0
   CSI065 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
   CSI076 8.382957e-04 0.0000000000 0.000000e+00 0.000000e+00
                                                                       0
##
          Otu02333 Otu02334
                                 Otu02335
                                              Otu02336
                                                            Otu02337
## CSI001
                 0
                          0 0.000000e+00 4.690652e-05 2.345326e-05
## CSI012
                 0
                           0 0.000000e+00 1.724971e-05 3.449941e-05
## CST022
                 0
                          0 0.000000e+00 0.000000e+00 4.303111e-05
## CSI044
                 0
                          0 0.000000e+00 0.000000e+00 9.266379e-04
```

```
## CSI055
                 0
                           0 2.151417e-05 0.000000e+00 0.000000e+00
                           0 0.000000e+00 0.000000e+00 5.294807e-04
##
  CSI065
                 0
##
  CSI076
                 0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
              0tu02338
                            Otu02339
                                         Otu02340 Otu02341
                                                                Ot:1102342
  CSI001 0.000000e+00 0.000000e+00 0.0000000000
                                                          0 0.000000e+00
  CSI012 0.000000e+00 0.000000e+00 0.0000000000
                                                          0 0.00000e+00
   CSI022 2.151556e-05 2.151556e-05 0.0000000000
                                                          0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00 0.0000000000
                                                          0.0.000000e+00
   CSI055 1.462963e-03 0.000000e+00 0.0006023967
                                                          0 1.290850e-03
   CSI065 0.000000e+00 0.000000e+00 0.0000000000
                                                          0 0.000000e+00
   CSI076 3.468810e-04 0.000000e+00 0.0005203214
                                                          0 0.00000e+00
##
          Otu02343
                       Otu02344 Otu02345
                                               Otu02346
                                                            0tu02347
##
  CSI001
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
##
  CSI012
                 0 0.00000e+00
                                        0 0.000000e+00 3.449941e-05
  CSI022
                                        0 0.000000e+00 0.000000e+00
##
                 0 0.00000e+00
  CSI044
                 0 0.00000e+00
                                        0 9.857850e-05 0.000000e+00
  CSI055
                 0 4.302833e-05
                                        0 2.151417e-05 0.000000e+00
##
   CSI065
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
##
  CST076
                 0 2.890675e-05
                                        0 0.000000e+00 0.000000e+00
##
              0tu02348
                            Otu02349
                                         Otu02350
                                                       0tu02351
                                                                    Ot:1102352
##
  CSI001 2.345326e-05 7.035977e-05 0.000000e+00 0.000000e+00 0.000000e+00
   CSI012 1.552474e-04 4.657421e-04 1.724971e-05 0.000000e+00 0.000000e+00
  CSI022 4.303111e-05 0.000000e+00 2.151556e-05 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00 6.454250e-05 8.605667e-05
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 3.782005e-05
   CSI076 0.000000e+00 0.000000e+00 5.781349e-05 9.250159e-04 0.000000e+00
##
              Otu02353 Otu02354 Otu02355 Otu02356 Otu02357
##
                                                                 Otu02358
  CSI001 0.000000e+00
                                        0
                                                  0
##
                               0
                                                           0 4.690652e-05
  CSI012 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 2.932450e-04
   CSI022 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 2.151556e-05
   CSI044 0.000000e+00
                               0
                                        0
                                                  0
                                                           0.0.000000e+00
   CSI055 0.000000e+00
                               0
                                        0
                                                  0
                                                             0.000000e+00
                                        0
  CSI065 0.000000e+00
                               0
                                                  0
                                                             0.000000e+00
   CSI076 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 0.000000e+00
##
          Otu02359
                       Otu02360 Otu02361
                                              Otu02362 Otu02363 Otu02364
##
## CSI001
                 0 1.172663e-04
                                        0 1.641728e-04
                                                               0
                                                                         0
## CSI012
                 0 0.000000e+00
                                        0 1.207479e-04
                                                               0
                                                                         0
                                                               0
                                                                         0
  CST022
                 0 2.151556e-05
                                        0 2.151556e-05
                                                               0
                                                                         0
##
  CSI044
                 0 0.00000e+00
                                        0 0.00000e+00
                                                               0
                                                                         0
  CSI055
                 0 2.151417e-05
                                        0 0.00000e+00
                                                               0
                                                                         0
##
  CSI065
                 0 0.00000e+00
                                        0 0.000000e+00
##
   CSI076
                 0 8.382957e-04
                                        0 0.00000e+00
                                                               \cap
                                                                         0
                            Otu02366 Otu02367 Otu02368
                                                            Otu02369 Otu02370
##
              Otu02365
  CSI001 0.000000e+00 0.000000e+00
                                            0
                                                      0 2.345326e-05
                                                                             0
  CSI012 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI022 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
  CSI055 0.000000e+00 0.000000e+00
                                            0
                                                      0 2.151417e-05
                                                                             0
   CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      0 1.134602e-04
                                                                             0
   CSI076 0.000000e+00 0.000000e+00
                                                                             0
##
                                             0
                                                      0 2.890675e-05
##
          Otu02371 Otu02372
                                 0tu02373
                                               Otu02374 Otu02375
                                                                      Otu02376
## CSI001
                 0
                           0 0.000000e+00 0.000000e+00
                                                               0.000000e+00
## CSI012
                 0
                           0 0.000000e+00 1.724971e-05
                                                               0 0.000000e+00
```

```
## CSI022
                 0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
                 0
                           0 0.000000e+00 0.000000e+00
## CST044
                                                                0 1.971570e-05
  CSI055
                 0
                           0 3.657408e-04 0.000000e+00
                                                                0 4.302833e-05
  CSI065
                 0
                             0.000000e+00 3.782005e-05
                                                                0 0.000000e+00
##
##
   CST076
                 0
                           0
                            5.781349e-05 0.000000e+00
                                                                0 0.000000e+00
          Otu02377 Otu02378 Otu02379 Otu02380
                                                    Otu02381 Otu02382 Otu02383
##
## CSI001
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                              0
## CSI012
                 0
                           0
                                    0
                                              0 5.174912e-05
                                                                     0
                                                                              0
##
  CSI022
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                              0
                                                                              0
##
  CSI044
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
   CSI055
                 0
                           0
                                    0
                                              0 4.302833e-05
                                                                              0
                           0
                                    0
                                                                              0
##
   CSI065
                 0
                                              0 0.00000e+00
                                                                     0
##
   CSI076
                 0
                           0
                                    0
                                               0.000000e+00
                                                                     0
                                                                              0
##
              Otu02384
                            Otu02385 Otu02386
                                                   Otu02387 Otu02388
   CSI001 7.035977e-05 0.0000000000
                                             0 0.00000e+00
                                                                    0
   CSI012 3.449941e-05 0.0000000000
                                             0 1.724971e-05
                                                                    0
                                                                    0
   CSI022 4.303111e-04 0.0000000000
                                             0 0.00000e+00
   CSI044 0.000000e+00 0.0000000000
                                             0 0.00000e+00
                                                                    0
   CSI055 0.000000e+00 0.0002796842
                                             0 2.151417e-05
                                                                    0
   CSI065 0.000000e+00 0.0000000000
                                             0 0.00000e+00
                                                                    0
##
   CSI076 8.672024e-05 0.0000000000
                                             0 0.000000e+00
                                                                    0
              Otu02389 Otu02390 Otu02391 Otu02392
##
                                                        Ot:1102393
                                                                      Ot:1102394
                                                  0 0.000000000 7.035977e-05
  CSI001 0.000000e+00
                                        0
##
                               0
   CSI012 0.000000e+00
                               0
                                        0
                                                  0 0.000000000 0.000000e+00
   CSI022 0.000000e+00
                               0
                                        0
                                                  0 0.000000000 0.000000e+00
   CSI044 0.000000e+00
                               0
                                        0
                                                  0 0.000000000 0.000000e+00
   CSI055 4.302833e-05
                               0
                                        0
                                                  0 0.000000000 0.000000e+00
   CSI065 3.782005e-05
                               0
                                        0
                                                  0 0.000000000 0.000000e+00
   CSI076 0.000000e+00
                               0
                                        0
                                                  0 0.000000000 0.000000e+00
##
##
              0tu02395
                            Otu02396
                                         0tu02397
                                                       Otu02398 Otu02399
##
   CSI001 2.345326e-05 0.0002110793 0.000000000 4.690652e-05
                                                                        0
   CSI012 1.034982e-04 0.0000000000 0.000000000 5.174912e-05
                                                                        0
   CSI022 8.606222e-05 0.0000000000 0.000000000 0.000000e+00
                                                                        0
   CSI044 0.000000e+00 0.0000000000 0.000000000 0.000000e+00
                                                                        0
   CSI055 4.302833e-05 0.0000000000 0.0000645425 0.000000e+00
                                                                        0
   CSI065 0.000000e+00 0.0000000000 0.000000000 0.000000e+00
                                                                        0
   CSI076 0.000000e+00 0.0000000000 0.0006359484 0.000000e+00
                                                                        0
##
          0 \pm 1102400
                        Otu02401
                                     Otu02402 Otu02403
                                                            Ot.1102404
## CSI001
                 0 2.345326e-05 0.000000e+00
                                                      0 0.00000e+00
                 0 0.000000e+00 6.899883e-05
##
  CST012
                                                      0 0.000000e+00
   CSI022
                 0 0.000000e+00 0.000000e+00
                                                      0 4.303111e-05
  CSI044
                 0 0.000000e+00 0.000000e+00
##
                                                      0.000000e+00
##
   CSI055
                 0 0.000000e+00 6.454250e-05
                                                      0 0.00000e+00
                  0 7.564010e-05 0.000000e+00
                                                      0 0.00000e+00
##
   CSI065
##
   CSI076
                  0 0.000000e+00 2.890675e-05
                                                      0 0.00000e+00
              Otu02405 Otu02406
##
                                     Otu02407
                                                   Otu02408 Otu02409
   CSI001 7.270510e-04
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI012 3.967433e-04
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI022 2.151556e-05
                               0 0.000000e+00 2.151556e-05
                                                                    0
   CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 6.454250e-05 0.000000e+00
                                                                    0
   CSI055 0.000000e+00
   CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
##
  CSI076 2.890675e-05
                               0 8.672024e-05 0.000000e+00
                                                                    0
##
              Otu02410 Otu02411
                                     Otu02412 Otu02413
                                                            0tu02414
```

```
## CSI001 4.690652e-05
                               0 2.345326e-05
                                                      0 0.00000e+00
   CSI012 0.000000e+00
                               0 3.449941e-05
                                                      0 5.174912e-05
                               0 0.00000e+00
   CSI022 0.000000e+00
                                                      0 4.303111e-05
   CSI044 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
   CSI055 0.000000e+00
                               0 2.151417e-05
                                                      0 0.00000e+00
                               0 0.000000e+00
                                                      0 0.000000e+00
   CSI065 0.000000e+00
##
   CSI076 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
##
              Ot:1102415
                            Otu02416 Otu02417 Otu02418 Otu02419
                                                                      0t_{11}02420
   CSI001 1.172663e-04 2.345326e-05
                                             Λ
                                                      0
                                                                0 0.000000e+00
                                             0
                                                      0
   CSI012 1.724971e-04 5.174912e-05
                                                                0 0.00000e+00
   CSI022 8.606222e-05 8.606222e-05
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI055 0.000000e+00 2.151417e-05
                                             0
                                                      0
                                                                0 4.302833e-05
   CSI065 0.000000e+00 3.782005e-05
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 5.781349e-05
##
          Otu02421
                        0tu02422
                                     Otu02423 Otu02424 Otu02425
                                                                      Otu02426
   CSI001
                  0 0.000000e+00 0.0000000000
                                                      0
##
                                                                0 0.000000000
   CSI012
                  0 0.000000e+00 0.0000000000
                                                      0
                                                                0 0.000000000
  CSI022
                  0 2.151556e-05 0.0000000000
##
                                                      0
                                                                0.0000000000
   CSI044
                  0 0.000000e+00 0.0000000000
                                                      0
                                                                0 0.000000000
##
   CSI055
                  0 0.000000e+00 0.0000000000
                                                      Λ
                                                                0 0.0000000000
   CSI065
                   0.000000e+00 0.000000000
                                                      0
                                                                0 0.0000000000
                  0 0.000000e+00 0.0000000000
##
   CSI076
                                                      0
                                                                0 0.0001445337
##
          Otu02427
                   0tu02428
                                 Otu02429
                                               Otu02430 Otu02431
                                                                      0tu02432
## CSI001
                  0
                           0 1.641728e-04 0.000000e+00
                                                                0 0.00000e+00
   CSI012
                  0
                           0 2.242462e-04 1.724971e-05
                                                                0 3.449941e-05
  CSI022
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
##
##
   CSI044
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.000000e+00
                  0
                           0 2.151417e-05 1.355393e-03
##
   CSI055
                                                                0 2.151417e-04
##
  CSI065
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
##
   CSI076
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 2.890675e-05
##
          Otu02433 Otu02434
                             Otu02435 Otu02436
                                                    Otu02437
                                                                  0 \pm 1102438
##
  CSI001
                  0
                           0
                                    0
                                              0 1.219569e-03 0.000000e+00
  CSI012
                  0
                           0
                                    0
                                              0 6.899883e-05 1.724971e-05
##
   CSI022
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                  0
                           0
                                              0 0.000000e+00 3.943140e-05
##
  CST044
                                    0
##
   CSI055
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
  CSI065
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
##
   CSI076
                  0
                           0
                                              0 0.000000e+00 0.000000e+00
##
                                     0
              Otu02439
                            Otu02440
                                          Otu02441 Otu02442
##
                                                                 Ot:1102443
   CSI001 7.035977e-05 0.000000e+00 0.0000000000
                                                           0 0.000000e+00
   CSI012 1.724971e-05 0.000000e+00 0.0000000000
                                                           0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00 0.0000000000
                                                           0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00 0.0000197157
                                                           0 0.00000e+00
   CSI055 0.000000e+00 2.151417e-05 0.0000000000
                                                           0 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00 0.0025339435
                                                           0 0.00000e+00
##
   CSI076 0.000000e+00 0.000000e+00 0.0000000000
                                                           0 0.000000e+00
              Otu02444 Otu02445 Otu02446 Otu02447
##
                                                        Otu02448 Otu02449
   CSI001 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00
                                                                         0
   CSI012 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                         0
   CSI022 0.000000e+00
                               0
                                         0
                                                                         0
                                                    0.000000e+00
  CSI044 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                         0
                                                  0 0.000000e+00
## CSI055 1.721133e-04
                               0
                                         0
                                                                         0
## CSI065 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                         0
```

```
## CSI076 2.890675e-05
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
##
          Otu02450 Otu02451 Otu02452 Otu02453 Otu02454
                                                              Ot:1102455
## CSI001
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
##
  CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                           0
                                              0
  CSI044
                  0
                                     0
                                                        0 0.00000e+00
##
                           0
  CSI055
                  0
                                     0
                                              0
                                                        0 6.454250e-04
## CSI065
                  0
                           0
                                     0
                                              0
                                                        0 3.782005e-05
##
  CSI076
                  0
                           0
                                     0
                                              0
                                                        0 5.781349e-05
##
              Otu02456 Otu02457
                                      Otu02458 Otu02459
                                                             Otu02460 Otu02461
   CSI001 0.000000e+00
                               0 2.345326e-05
                                                       0 2.814391e-04
                                                                              0
   CSI012 1.724971e-05
                               0 1.724971e-05
                                                       0 1.724971e-05
                                                                              0
   CSI022 0.000000e+00
                               0 2.151556e-05
                                                       0 0.000000e+00
                                                                              0
                               0 0.00000e+00
                                                       0 0.00000e+00
   CSI044 0.000000e+00
                                                                              0
   CSI055 3.227125e-04
                                                       0 0.000000e+00
                               0 0.00000e+00
                                                                              0
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
##
   CSI076 5.781349e-05
                               0 0.00000e+00
                                                       0 2.890675e-05
                                                                              0
##
          Otu02462 Otu02463 Otu02464
                                           0tu02465
                                                         Otu02466
                                                                       0tu02467
## CST001
                  0
                           0
                                     0 9.381303e-05 0.000000e+00 0.000000e+00
## CSI012
                  0
                           0
                                     0 6.899883e-05 1.724971e-05 1.724971e-05
##
  CSI022
                  0
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
## CSI055
                           0
                                     0 0.000000e+00 6.454250e-05 2.151417e-04
                  0
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI065
                  0
##
  CST076
                  0
                           0
                                     0 0.000000e+00 8.672024e-05 3.468810e-04
##
              Otu02468 Otu02469
                                     Otu02470
                                                  Otu02471 Otu02472 Otu02473
   CSI001 0.000000e+00
                               0 0.00000000 0.000000000
                                                                   0
                                                                             0
##
                                                                   0
                                                                             0
   CSI012 0.000000e+00
                               0 0.00000000 0.000000000
   CSI022 0.000000e+00
                               0 0.00000000 0.000000000
                                                                   0
                                                                             0
   CSI044 0.000000e+00
                               0 0.00000000 0.000000000
                                                                   0
                                                                             0
   CSI055 0.000000e+00
                               0 0.00000000 0.000000000
                                                                   0
                                                                             0
   CSI065 0.000000e+00
                               0 0.00000000 0.0001134602
                                                                   0
                                                                             0
##
   CSI076 0.000000e+00
                               0 0.00000000 0.000000000
                                                                   0
                                                                             0
##
              Otu02474 Otu02475 Otu02476 Otu02477 Otu02478
                                                                   Otu02479
   CSI001 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI012 0.0000000000
                               0
                                         0
                                                  0
                                                            0.000000e+00
   CSI022 0.0000000000
                               0
                                         0
                                                   0
                                                              0.000000e+00
  CSI044 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
   CSI055 0.0000000000
                               0
                                         0
                                                   0
                                                              0.000000e+00
   CSI065 0.0000000000
                               0
                                         0
                                                   0
                                                              0.000000e+00
                               0
                                         0
   CSI076 0.0000000000
                                                              0.000000e+00
          Otu02480 Otu02481 Otu02482 Otu02483
                                                              Otu02485
##
                                                     0t.1102484
##
  CSI001
                  0
                           0
                                     0
                                              0 2.345326e-05
                                                                      0
                           0
  CSI012
                  0
                                     0
                                              0 0.000000e+00
                                                                      0
##
  CSI022
                  0
                           0
                                     0
                                              0 1.506089e-04
                                                                      0
                  0
                           0
                                     0
##
  CSI044
                                              0 0.00000e+00
                                                                      0
##
   CSI055
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                      0
                           0
##
   CSI065
                  0
                                     0
                                              0 3.782005e-05
                                                                      0
##
   CST076
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
##
              Otu02486 Otu02487 Otu02488
                                               Otu02489
                                                             Otu02490
   CSI001 0.000000e+00
                                         0 0.000000000 0.000000e+00
##
                               0
## CSI012 0.000000e+00
                               0
                                         0 0.0000000000 5.174912e-05
## CSI022 0.000000e+00
                               0
                                         0 0.000000000 0.000000e+00
## CSI044 0.000000e+00
                               0
                                         0 0.000000000 0.000000e+00
```

```
## CSI055 0.000000e+00
                               0
                                         0 0.000000000 0.000000e+00
   CSI065 0.000000e+00
                                         0 0.0000756401 0.000000e+00
                               0
   CSI076 0.000000e+00
                               0
                                         0 0.0000000000 5.781349e-05
##
              Otu02491 Otu02492 Otu02493
                                               Otu02494 Otu02495 Otu02496
   CSI001 0.000000e+00
                               0
                                         0.0000000000
                                                                0
                                                                          0
                               0
                                                                0
                                                                          Λ
  CSI012 0.000000e+00
                                         0 0.000000000
                                                                0
   CSI022 0.000000e+00
                               0
                                         0 0.000000000
                                                                          0
## CSI044 0.000000e+00
                               0
                                         0 0.000000000
                                                                0
                                                                          0
   CSI055 0.000000e+00
                               0
                                         0 0.000000000
                                                                0
                                                                          0
                               0
                                                                0
                                                                          Λ
   CSI065 0.000000e+00
                                         0 0.000000000
   CSI076 0.000000e+00
                               0
                                         0 0.000000000
                                                                0
                                                                          0
##
              Otu02497 Otu02498 Otu02499 Otu02500
                                                         Otu02501
                                                                      Otu02502
##
   CSI001 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 1.172663e-04
                               0
                                         0
   CSI012 1.724971e-05
                                                  0 0.000000e+00 6.899883e-05
   CSI022 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 4.303111e-05
   CSI044 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 1.971570e-05
                               0
                                         0
   CSI055 0.000000e+00
                                                  0 2.151417e-05 0.000000e+00
   CSI065 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 0.000000e+00
                                         0
                                                  0 2.890675e-05 0.000000e+00
##
   CST076 0.000000e+00
                               0
##
             Otu02503 Otu02504
                                     Otu02505
                                                  Otu02506
                                                                0tu02507
##
  CSI001 0.00000e+00
                              0 0.000000e+00 0.000000000 0.000000e+00
  CSI012 0.00000e+00
                              0 1.724971e-05 0.000000000 0.000000e+00
## CSI022 0.00000e+00
                              0 0.000000e+00 0.000000000 0.000000e+00
                              0 0.000000e+00 0.000000000 0.000000e+00
  CSI044 0.00000e+00
  CSI055 6.45425e-05
                              0 0.000000e+00 0.0001505992 0.000000e+00
   CSI065 0.00000e+00
                              0 0.000000e+00 0.000000000 0.000000e+00
   CSI076 0.00000e+00
                              0 0.000000e+00 0.0000000000 8.672024e-05
##
##
          Otu02508 Otu02509
                             Otu02510
                                           Otu02511 Otu02512 Otu02513 Otu02514
  CSI001
                  0
                                                                     0
                                                                               0
##
                           0
                                     0 1.407195e-04
                                                            0
## CSI012
                  0
                           0
                                     0 1.724971e-05
                                                            0
                                                                     0
                                                                               0
## CSI022
                  0
                           0
                                     0 7.960756e-04
                                                            0
                                                                     0
                                                                               0
##
  CST044
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
##
   CSI055
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
                  0
                           0
                                                            0
                                                                               0
##
  CSI065
                                     0 0.000000e+00
                                                                     0
                  0
                           0
                                       0.000000e+00
                                                            0
                                                                     0
                                                                               0
##
   CSI076
          Otu02515 Otu02516 Otu02517
                                                         Otu02519 Otu02520
##
                                           Ot:1102518
## CSI001
                  0
                           0
                                     0 0.000000000 0.000000e+00
                                                                          0
## CSI012
                  0
                           0
                                     0 0.0001379977 1.724971e-05
                                                                          0
## CSI022
                  0
                           0
                                     0 0.000000000 0.000000e+00
                                                                          0
                                     0 0.000000000 0.000000e+00
                  0
                           0
                                                                          0
## CST044
                           0
                                                                          0
   CSI055
                  0
                                     0 0.0000000000 2.151417e-05
                  0
                           0
                                     0 0.000000000 0.000000e+00
                                                                          0
##
  CST065
##
   CST076
                  0
                           0
                                     0 0.000000000 0.000000e+00
                                                                          0
              Otu02521 Otu02522 Otu02523
##
                                               0tu02524
                                                             Otu02525 Otu02526
   CSI001 0.000000e+00
                               0
                                         0 0.000000e+00 1.407195e-04
                                                                              0
   CSI012 1.621472e-03
                               0
                                         0 0.000000e+00 2.069965e-04
                                                                              0
   CSI022 0.000000e+00
                               0
                                         0 0.000000e+00 4.303111e-05
                                                                              0
                               0
   CSI044 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
   CSI055 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
   CSI065 3.782005e-05
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
   CSI076 0.000000e+00
                               0
##
                                         0
                                          1.647685e-03 0.000000e+00
                                                                              0
##
          Ot:1102527
                        Otu02528 Otu02529 Otu02530
                                                       Otu02531 Otu02532
## CSI001
                  0 1.008490e-03
                                         0
                                                  0.00000000
                                                                        0
## CSI012
                  0 3.104947e-04
                                         0
                                                  0 0.00000000
                                                                        0
```

```
## CSI022
                 0 0.00000e+00
                                        0
                                                  0 0.00000000
                                                                        0
                                        0
                                                                        0
##
  CST044
                 0 0.00000e+00
                                                  0 0.00000000
                  0 0.000000e+00
   CSI055
                                        0
                                                  0 0.000129085
                                                                        0
  CSI065
                                        0
                                                                        0
##
                  0.000000e+00
                                                  0.000000000
##
   CST076
                 0.000000e+00
                                        0
                                                  0 0.000000000
                                                                        0
                                              Otu02536
                                                            0tu02537
##
              Otu02533 Otu02534 Otu02535
  CSI001 0.000000e+00
                               0
                                        0 2.345326e-05 0.000000e+00
## CSI012 0.000000e+00
                               0
                                        0 2.414959e-04 1.724971e-05
   CSI022 0.000000e+00
                               0
                                        Λ
                                          1.075778e-03 0.000000e+00
   CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
   CSI055 1.290850e-04
                               0
                                        0 0.000000e+00 2.151417e-05
   CSI065 0.000000e+00
                               0
                                        0 0.000000e+00 1.891003e-04
##
   CSI076 1.734405e-04
                               0
                                        0 0.000000e+00 0.000000e+00
##
              0tu02538
                            Otu02539 Otu02540
                                                   Otu02541 Otu02542
   CSI001 0.000000e+00 0.000000e+00
                                            0.000000000
##
                                                                    0
   CSI012 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                    0
   CSI022 2.151556e-05 0.000000e+00
                                            0 0.000000000
                                                                    0
   CSI044 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                    0
   CSI055 0.000000e+00 2.151417e-05
                                            0 0.0008605667
                                                                    0
   CSI065 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                    0
##
   CSI076 0.000000e+00 0.000000e+00
                                            0 0.000000000
                                                                    0
              0tu02543
##
                            Ot:1102544
                                         Otii02545 Otii02546 Otii02547
  CSI001 0.000000e+00 2.345326e-05 0.000000e+00
                                                          0
                                                                    O
   CSI012 0.000000e+00 1.724971e-05 0.000000e+00
                                                          0
                                                                    0
   CSI022 4.303111e-05 0.000000e+00 6.454667e-05
                                                          0
                                                                    0
   CSI044 1.182942e-04 0.000000e+00 0.000000e+00
                                                          Λ
                                                                    0
   CSI055 0.000000e+00 1.721133e-04 4.302833e-05
                                                          0
                                                                    0
                                                                    0
   CSI065 3.782005e-05 0.000000e+00 0.000000e+00
                                                          0
   CSI076 0.000000e+00 1.445337e-04 0.000000e+00
                                                          0
                                                                    Λ
##
##
              Otu02548 Otu02549 Otu02550
                                              Otu02551 Otu02552
                                                                      Otu02553
##
   CSI001 0.000000e+00
                               0
                                        0 0.0002110793
                                                               0 2.345326e-05
   CSI012 1.724971e-05
                               0
                                        0 0.0002414959
                                                               0 3 104947e-04
   CSI022 0.000000e+00
                               0
                                        0 0.000000000
                                                               0 6.454667e-05
   CSI044 0.000000e+00
                               0
                                        0 0.000000000
                                                               0 0.00000e+00
   CSI055 4.302833e-05
                               0
                                        0 0.000000000
                                                               0 0.00000e+00
                               0
##
   CSI065 0.000000e+00
                                        0 0.000000000
                                                               0.000000e+00
##
   CSI076 0.000000e+00
                               0
                                        0 0.000000000
                                                               0 0.00000e+00
##
              Otu02554 Otu02555 Otu02556 Otu02557 Otu02558
                                                                  Otu02559
  CSI001 2.345326e-05
                                        0
                                                  0
                                                           0 7.035977e-05
                               0
##
   CSI012 5.174912e-05
                               0
                                        0
                                                  0
                                                           0 1.552474e-04
   CSI022 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 0.00000e+00
   CSI044 0.000000e+00
                               0
                                        0
                                                  0
                                                           0.000000e+00
   CSI055 2.151417e-04
                               0
                                        0
                                                  0
                                                           0 0.00000e+00
   CSI065 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 0.00000e+00
##
   CSI076 1.156270e-04
                               0
                                                  0
                                                           0 0.00000e+00
##
                                         Otu02562 Otu02563 Otu02564 Otu02565
              Otu02560
                            Otu02561
   CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                             0
   CSI012 0.000000e+00 3.449941e-05 0.000000e+00
                                                          0
                                                                    0
                                                                             0
   CSI022 0.000000e+00 2.151556e-05 0.000000e+00
                                                          0
                                                                    0
                                                                             0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                             0
   CSI055 8.605667e-05 0.000000e+00 0.000000e+00
                                                                    0
                                                          0
                                                                             0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                             0
##
  CSI076 5.781349e-05 0.000000e+00 2.890675e-05
                                                          0
                                                                    0
                                                                             0
##
              Otu02566 Otu02567 Otu02568
                                              Otu02569
                                                            Otu02570 Otu02571
```

```
## CSI001 0.000000e+00
                               0
                                        0 0.000000e+00 9.381303e-05
                                                                             0
                                        0 0.000000e+00 1.897468e-04
   CSI012 1.724971e-05
                               0
                                                                             0
   CSI022 0.000000e+00
                               0
                                        0 0.000000e+00 6.454667e-05
                                                                             0
   CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
   CSI055 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                                                             0
##
                               0
                                        0 2.890675e-05 0.000000e+00
   CSI076 0.000000e+00
                                                                             0
                                     Otu02574 Otu02575 Otu02576
##
              Otu02572 Otu02573
                                                                      Ot:1102577
   CSI001 7.035977e-05
                               0 9.381303e-05
                                                      0
                                                                0 4.690652e-05
                                                      0
   CSI012 0.000000e+00
                               0 1.207479e-04
                                                                0 0.00000e+00
   CSI022 0.000000e+00
                               0 6.454667e-05
                                                      0
                                                                0 6.454667e-05
                                                      0
   CSI044 0.000000e+00
                               0 0.00000e+00
                                                                0 0.00000e+00
   CSI055 2.151417e-05
                               0 0.000000e+00
                                                      0
                                                                0 0.000000e+00
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
   CSI076 8.672024e-05
                               0 0.000000e+00
                                                                0 0.000000e+00
##
                                                      0
##
              Otu02578 Otu02579 Otu02580 Otu02581
                                                        Otu02582 Otu02583
##
   CSI001 4.690652e-05
                               0
                                        0
                                                  0 0.000000000
                                                                         0
   CSI012 0.000000e+00
                               0
                                        0
                                                  0 0.000000000
                                                                         0
   CSI022 4.303111e-05
                                        0
                                                                         0
                               0
                                                   0.0000000000
   CSI044 0.000000e+00
                               0
                                        0
                                                    0.000000000
                                                                         0
##
   CSI055 0.000000e+00
                               0
                                        0
                                                    0.0001721133
                                                                         0
   CSI065 0.000000e+00
                               0
                                        0
                                                    0.000000000
                                                                         0
  CSI076 0.000000e+00
                                        0
                                                  0 0.000000000
##
                               0
                                                                         0
##
              Ot:1102584
                            Otu02585 Otu02586 Otu02587
                                                            Otu02588 Otu02589
                                             0
##
  CSI001 0.000000e+00 0.000000e+00
                                                      0.000000e+00
                                                                             0
   CSI012 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
   CSI055 0.000000e+00 0.000000e+00
                                             0
                                                      0 2.151417e-05
                                                                             0
   CSI065 3.782005e-05 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
##
   CSI076 0.000000e+00 5.781349e-05
                                             0
                                                      0 0.000000e+00
                                                                             0
##
          Otu02590
                        Otu02591 Otu02592
                                               Otu02593 Otu02594
                                                                      Otu02595
##
  CSI001
                 0 0.0001407195
                                        0 2.345326e-05
                                                                0 0.00000e+00
  CSI012
                 0 0.000000000
##
                                        0 0.00000e+00
                                                                0 0.00000e+00
   CSI022
                 0 0.000000000
                                        0 0.00000e+00
                                                                0 4.087956e-04
##
  CST044
                 0 0.000000000
                                        0 0.00000e+00
                                                                0.000000e+00
##
   CSI055
                   0.000000000
                                        0 0.00000e+00
                                                                0 0.00000e+00
  CSI065
                 0 0.000000000
                                        0 0.00000e+00
                                                                0 0.000000e+00
##
                                                                0 0.000000e+00
##
   CST076
                  0.0000000000
                                        0.000000e+00
                            Otu02597 Otu02598 Otu02599 Otu02600
##
              Ot:1102596
                                                                      Ot:1102601
   CSI001 0.0000000000 0.0000000000
                                             0
                                                      0
                                                                0 0.000000e+00
   CSI012 0.0000000000 0.0007589871
                                             0
                                                      0
                                                                0 1.724971e-05
   CSI022 0.0000000000 0.0000000000
                                             0
                                                      0
                                                                0 0.00000e+00
                                             0
   CSI044 0.0000000000 0.0000000000
                                                      0
                                                                0 0.000000e+00
   CSI055 0.0003011983 0.0000000000
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI065 0.0000000000 0.0000000000
                                             0
                                                      0
                                                                0 0.000000e+00
##
   CSI076 0.0000000000 0.0000000000
                                             0
                                                      0
                                                                0 0.00000e+00
##
              Otu02602 Otu02603
                                     Otu02604 Otu02605 Otu02606 Otu02607
                               0 0.000000000
  CSI001 2.345326e-05
                                                      0
                                                                0
                                                                         0
   CSI012 0.000000e+00
                               0 0.000000000
                                                      0
                                                                0
                                                                         0
   CSI022 0.000000e+00
                                                      0
                                                                0
                                                                         0
                               0.0.0000000000
  CSI044 0.000000e+00
                               0 0.000000000
                                                      0
                                                                0
                                                                         0
## CSI055 0.000000e+00
                               0 0.000000000
                                                      0
                                                                0
                                                                         0
## CSI065 1.512802e-04
                               0 0.0002647404
                                                      0
                                                                0
                                                                         0
```

```
## CSI076 2.023472e-04
                               0 0.000000000
                                                                0
                                                                          0
##
              Ot1102608 Ot1102609
                                                   Otu02611 Otu02612 Otu02613
                                     Ot:1102610
##
  CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
  CSI012 0.000000e+00
                               0 3.449941e-05 0.000000e+00
                                                                    0
                                                                              0
   CSI022 0.000000e+00
                               0 2.151556e-05 0.000000e+00
                                                                    0
                                                                              0
  CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                               0 0.000000e+00 0.000000e+00
   CSI055 3.011983e-04
                                                                    0
                                                                              0
  CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
   CSI076 8.672024e-05
                               0 1.214083e-03 0.000000e+00
                                                                    0
                                                                              O
                        Otu02615
                                                             Otu02618 Otu02619
##
          0tu02614
                                      Otu02616 Otu02617
  CSI001
                  0 1.407195e-04 0.0001172663
                                                      0 4.690652e-05
                                                                              0
## CSI012
                  0 1.552474e-04 0.0000000000
                                                      0 1.724971e-05
                                                                              0
## CSI022
                  0 8.606222e-05 0.0000000000
                                                      0 0.000000e+00
                                                                              0
## CSI044
                  0 0.000000e+00 0.0000000000
                                                      0 0.000000e+00
                                                                              0
                  0 0.000000e+00 0.0000000000
  CST055
                                                      0.0.000000e+00
                                                                              0
## CSI065
                  0 0.000000e+00 0.0000000000
                                                      0 0.000000e+00
                  0 0.000000e+00 0.0000000000
##
   CST076
                                                      0 2.890675e-05
                                                                              0
          Otu02620 Otu02621 Otu02622
                                           0tu02623
                                                         Otu02624 Otu02625
##
                                     0 0.000000e+00 4.690652e-05
## CST001
                 0
                           0
                                                                          0
## CSI012
                  0
                           0
                                     0 0.000000e+00 3.449941e-05
                                                                          0
##
  CSI022
                  Ω
                           0
                                     0 0.000000e+00 3.872800e-04
                                                                          0
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
## CST044
                                                                          0
## CSI055
                                     0 2.151417e-04 0.000000e+00
                           0
                  0
                                                                          0
                           0
##
  CSI065
                  0
                                     0 0.000000e+00 0.000000e+00
                           0
##
  CSI076
                  Λ
                                     0 7.226687e-04 0.000000e+00
                                                                          0
##
          Otu02626
                        Otu02627 Otu02628 Otu02629
                                                         Otu02630
                                                                      Otu02631
                                         0
                                                  0 7.035977e-05 0.000000e+00
## CSI001
                  0 0.000000e+00
##
   CSI012
                  0 0.000000e+00
                                         0
                                                  0 1.034982e-04 8.624853e-05
  CSI022
                  0 0.000000e+00
                                         0
                                                  0 6.454667e-05 0.000000e+00
##
   CSI044
                  0 0.00000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
   CSI055
                  0 2.151417e-05
                                         0
                                                  0 2.151417e-05 0.000000e+00
##
   CSI065
                  0 0.000000e+00
                                         0
                                                  0 3.782005e-05 0.000000e+00
##
   CSI076
                  0 5.781349e-05
                                         0
                                                  0 3.179742e-04 0.000000e+00
##
          Otu02632 Otu02633
                                 Otu02634 Otu02635 Otu02636 Otu02637 Otu02638
  CSI001
                 0
                           0 0.00000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
##
  CSI012
                 0
                                                  0
                                                            0
                                                                     0
                                                                               0
##
                           0 1.724971e-05
## CSI022
                  0
                           0 0.000000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI044
                  Ω
                           0 0.000000e+00
                                                  0
                                                            Λ
                                                                               Λ
                                                                     0
                  0
                           0 0.000000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
   CST055
                                                  0
                                                            Λ
                                                                     0
                                                                               Λ
##
  CST065
                  \cap
                           0.000000e+00
                                                  0
                                                            0
   CST076
                  0
                           0 0.00000e+00
##
              Otu02639 Otu02640 Otu02641 Otu02642 Otu02643
                                                                  Ot.1102644
   CSI001 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 2.345326e-05
   CSI012 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
   CSI022 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
   CSI044 2.957355e-04
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
   CSI055 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
                               0
                                         0
                                                  0
   CSI065 0.000000e+00
                                                            0 0.00000e+00
   CSI076 2.601607e-04
##
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
##
              Otu02645
                            Otu02646 Otu02647
                                                   Otu02648 Otu02649 Otu02650
   CSI001 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                              0
                                                                    0
  CSI012 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                    0
                                                                              0
## CSI022 0.000000e+00 4.303111e-05
                                             0 3.012178e-04
                                                                    0
                                                                              0
## CSI044 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
```

```
## CSI055 0.000000e+00 0.000000e+00
                                         0 2.151417e-05
                                                               0
  CSI065 0.000000e+00 0.000000e+00
                                         0 0.00000e+00
                                                               0
  CSI076 0.000000e+00 0.000000e+00
                                         0 0.00000e+00
                                                               0
##
             0tu02651
                          Otu02652 Otu02653 Otu02654 Otu02655 Otu02656
  CSI001 4.690652e-05 3.987054e-04
                                         0
                                                  0
                                                           0
                                                                    0
  CSI012 1.552474e-04 0.000000e+00
                                         0
                                                  0
                                                           0
                                                                    0
  CSI022 0.000000e+00 0.000000e+00
                                         0
                                                           0
                                                  0
                                                                    0
  CSI044 0.000000e+00 0.000000e+00
                                         0
                                                  0
                                                           0
                                                                    0
  CSI055 0.000000e+00 0.000000e+00
                                         0
                                                  0
                                                           0
                                                                    0
                                         0
                                                  0
                                                           0
                                                                    0
  CSI065 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00
                                          0
                                                  0
                                                           0
                                                                    0
         Otu02657 Otu02658 Otu02659
##
                                   Otu02660 Otu02661
                                                         Otu02662
##
  CSI001
                0
                         0
                                  0
                                          0
                                                   0 0.000000e+00
  CSI012
                         0
                                          0
##
                0
                                  0
                                                   0 0.00000e+00
  CSI022
                0
                         0
##
                                  0
                                          0
                                                   0 8.606222e-05
  CSI044
                0
                         0
                                  0
                                          0
                                                   0 0.00000e+00
                         0
                                          0
  CSI055
                0
                                  0
                                                   0 0.00000e+00
##
  CSI065
                0
                         0
                                  0
                                          0
                                                   0 1.134602e-04
                         0
##
  CST076
                0
                                  0
                                          0
                                                   0.0.000000e+00
##
             Otu02663 Otu02664
                                   Otu02665
                                               Otu02666
                                                            Otu02667
##
  CSI001 0.000000e+00
                             CSI012 0.000000e+00
                             CSI022 0.000000e+00
                             CSI044 0.000000e+00
  CSI055 0.000000e+00
                             0 1.290850e-04 0.000000e+00 0.0001075708
  CSI065 0.000000e+00
                             CSI076 2.890675e-05
                             0 5.781349e-05 0.000000e+00 0.0000000000
##
##
         Otu02668 Otu02669
                               Otu02670 Otu02671 Otu02672 Otu02673
  CSI001
                                              0
                                                       0
                                                                0
##
                0
                         0 0.00000e+00
  CSI012
                0
                         0 0.00000e+00
                                              0
                                                       0
                                                                0
##
  CSI022
                0
                         0 0.00000e+00
                                              0
                                                       0
                                                                0
##
  CSI044
                0
                         0
                           0.000000e+00
                                              0
                                                       0
                                                                0
  CSI055
                0
                           2.151417e-05
                                              0
                                                       0
                                                                0
                                              0
                                                       0
  CSI065
                0
                         0 3.403805e-04
                                                                0
##
                         0 0.00000e+00
                                              0
                                                       0
                                                                0
##
  CSI076
                0
             Otu02674 Otu02675
                                  Otu02676
                                                            Otu02678
##
                                               0t.1102677
  CSI001 9.381303e-05
                             0 2.345326e-05 0.000000e+00 2.345326e-05
  CSI012 1.724971e-05
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI022 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
  CSI055 0.000000e+00
                             0 0.000000e+00 1.505992e-04 0.000000e+00
  CSI065 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI076 0.000000e+00
                             0 0.000000e+00 8.672024e-05 0.000000e+00
             Otu02679 Otu02680 Otu02681
##
                                           Otu02682
                                                       Otu02683
  CSI001 4.690652e-05
                             0
                                     0 2.345326e-05 0.001993527
  CSI012 3.449941e-05
                             0
                                     0 0.000000e+00 0.000000000
  CSI022 0.000000e+00
                             0
                                     0 0.000000e+00 0.000000000
                             0
  CSI044 0.000000e+00
                                     0 0.000000e+00 0.000000000
  CSI055 8.605667e-05
                             0
                                     0 2.796842e-04 0.000000000
  CSI065 0.000000e+00
                             0
                                       0.000000e+00 0.000000000
##
                             0
                                       0.000000e+00 0.000000000
##
  CSI076 3.179742e-04
                                     0
##
             Otu02684 Otu02685 Otu02686
                                           Otu02687 Otu02688 Otu02689
## CSI001 0.000000e+00
                             0
                                     0 0.00000e+00
                                                           0
                                                                    0
## CSI012 0.000000e+00
                             0
                                     0 0.00000e+00
                                                           0
                                                                    0
```

0

0

0

```
## CSI022 0.000000e+00
                               0
                                         0 4.303111e-05
                                                                 0
                                                                          0
   CSI044 0.000000e+00
                               0
                                                                 0
                                                                          0
                                         0 0.00000e+00
                                         0 0.00000e+00
   CSI055 0.000000e+00
                               0
                                                                 0
                                                                          0
   CSI065 0.000000e+00
                               0
                                           0.000000e+00
                                                                 0
                                                                          0
                                         \cap
##
   CSI076 0.000000e+00
                                           0.000000e+00
                                                                 0
                                                                          0
          Otu02690 Otu02691
                                  Otu02692
                                               Otu02693
                                                             Otu02694 Otu02695
##
  CSI001
                  0
                           0 0.000000e+00 9.381303e-05 0.000000e+00
                                                                              0
## CSI012
                  0
                           0 0.000000e+00 1.034982e-04 0.000000e+00
                                                                              0
   CSI022
                  0
                             0.000000e+00 0.000000e+00 0.000000e+00
                                                                              O
                  0
##
   CSI044
                             0.000000e+00 0.000000e+00 0.000000e+00
                                                                              0
   CSI055
                  0
                             0.000000e+00 0.000000e+00 1.721133e-04
                                                                              0
                  0
                             0.000000e+00 0.000000e+00 0.000000e+00
                                                                              0
##
   CSI065
##
   CSI076
                  0
                           0 0.000000e+00 0.000000e+00 2.890675e-05
                                                                              0
                                               Otu02699
##
          Otu02696
                        Otu02697 Otu02698
                                                             Otu02700 Otu02701
  CSI001
                  0 4.690652e-05
                                         0 0.000000e+00 0.0000000000
                                                                              0
##
##
   CSI012
                  0
                    1.724971e-05
                                         0 1.724971e-05 0.0000000000
                                                                              0
##
   CSI022
                  0 2.151556e-05
                                         0 0.000000e+00 0.0002151556
                                                                              0
   CSI044
                   0.000000e+00
                                         0 5.914710e-05 0.0000000000
                                                                              0
   CSI055
                                         0 1.290850e-04 0.0000000000
##
                  0 0.00000e+00
                                                                              0
##
   CSI065
                   0.000000e+00
                                           0.000000e+00 0.0000000000
                                                                              0
##
   CST076
                  0 0.000000e+00
                                         0 0.000000e+00 0.0000000000
                                                                              0
          Otu02702 Otu02703
                                  Otu02704 Otu02705 Otu02706
##
                                                                   Ot:1102707
## CSI001
                  0
                                                   0
                           0 0.000000e+00
                                                            0.0.000000e+00
                                                   0
##
   CSI012
                  0
                           0 0.00000e+00
                                                            0 0.000000e+00
                           0 2.151556e-05
                                                   0
##
  CSI022
                  0
                                                            0.000000e+00
   CSI044
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
   CSI055
                  0
                                                   0
##
                           0
                             0.000000e+00
                                                            0
                                                              0.000000e+00
                                                   0
##
   CSI065
                  0
                           0 0.00000e+00
                                                            0
                                                              3.782005e-05
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
##
   CSI076
##
              Otu02708
                            Otu02709 Otu02710
                                                    Otu02711
                                                                  Otu02712
##
   CSI001 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI022 8.606222e-05 0.000000e+00
                                             0 6.454667e-05 2.151556e-05
                                             0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 1.512802e-04
                                             0 0.000000e+00 0.000000e+00
##
##
   CSI076 0.000000e+00 8.672024e-05
                                             0 0.000000e+00 0.000000e+00
##
              0tu02713
                            Otu02714 Otu02715 Otu02716 Otu02717
                                                                       Otu02718
   CSI001 7.035977e-05 0.0010553966
                                             0
                                                       0
                                                                 0 0.0000000000
   CSI012 1.724971e-05 0.0001552474
                                             0
                                                       0
                                                                 0 0.000000000
                                             0
   CSI022 0.000000e+00 0.0000000000
                                                       0
                                                                 0 0.0000000000
   CSI044 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                 0.0000000000
   CSI055 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                 0 0.0002366558
                                             0
                                                       0
   CSI065 0.000000e+00 0.0000000000
                                                                 0 0.000000000
                                             0
                                                       0
   CSI076 2.890675e-05 0.0000000000
                                                                 0 0.000000000
                                     Otu02721 Otu02722 Otu02723
##
          Otu02719
                        Otu02720
                                                                 0tu02724
##
   CSI001
                  0 0.000000000 0.00000e+00
                                                      0
                                                               0
                                                                         0
   CSI012
                                                      0
                                                               0
                                                                         0
##
                  0 0.0005519906 0.00000e+00
   CSI022
                  0 0.000000000 0.00000e+00
                                                      0
                                                               0
                                                                         0
   CSI044
                   0.000000000 1.97157e-05
                                                      0
                                                               0
                                                                         0
##
                   0.000000000 0.00000e+00
                                                      0
                                                               0
                                                                         0
##
   CSI055
##
   CSI065
                  0 0.000000000 0.00000e+00
                                                      0
                                                               0
                                                                         0
##
  CSI076
                  0 0.000000000 0.00000e+00
                                                      0
                                                               0
                                                                         0
##
          0tu02725
                        Otu02726
                                      Otu02727
                                                    Otu02728
                                                                  0tu02729
```

```
## CSI001
                 0 0.000000e+00 5.863314e-04 0.000000e+00 0.000000e+00
  CST012
                 0 5.174912e-05 5.174912e-05 0.000000e+00 0.000000e+00
  CSI022
                 0 6.454667e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
##
  CST055
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                 0 3.782005e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
##
                 0 0.000000e+00 0.000000e+00 0.000000e+00 2.890675e-05
##
  CSI076
##
              Otu02730
                           Otu02731
                                        0tu02732
                                                     Otu02733 Otu02734
  CSI001 0.000000e+00 0.000000e+00 0.0000000000 1.172663e-04
                                                                     0
                                                                     0
   CSI012 0.000000e+00 8.624853e-05 0.000000000 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
   CSI044 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
   CSI055 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
                                                                     0
   CSI065 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
   CSI076 2.023472e-04 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
##
              Otu02735 Otu02736
                                    Otu02737 Otu02738 Otu02739
                                                                   Otu02740
  CSI001 0.000000e+00
                                                    0
##
                              0 0.00000e+00
                                                             0 0.00000e+00
   CSI012 1.138481e-03
                              0 0.00000e+00
                                                    0
                                                             0 8.624853e-05
  CSI022 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0 0.00000e+00
  CSI044 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0 0.00000e+00
  CSI055 0.000000e+00
                              0 2.151417e-04
                                                    Λ
                                                             0 0.000000e+00
  CSI065 0.000000e+00
                              0 0.00000e+00
                                                    0
                                                             0.000000e+00
  CSI076 0.000000e+00
##
                              0 1.445337e-04
                                                    Ω
                                                             0.000000e+00
          Otu02741 Otu02742 Otu02743
##
                                         Otu02744
                                                      Otu02745 Otu02746
                          0
## CSI001
                 0
                                   0 0.000000e+00 0.000000e+00
                                                                      0
## CSI012
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                      0
## CSI022
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                      0
                          0
## CSI044
                 0
                                   0 0.000000e+00 0.000000e+00
                                                                      0
                          0
                 0
                                   0 0.000000e+00 8.605667e-05
                                                                      0
## CSI055
## CSI065
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                      0
##
  CSI076
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                      0
##
          Otu02747 Otu02748
                                Otu02749
                                             Otu02750
                                                          0 \pm 1102751
## CSI001
                 0
                          0 2.345326e-05 0.000000e+00 0.000000e+00
  CSI012
##
                 0
                          0 3.449941e-05 0.000000e+00 3.449941e-05
  CSI022
                 0
                            0.000000e+00 2.151556e-05 1.075778e-04
                 0
                          0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST044
## CSI055
                 0
                          0 6.454250e-05 0.000000e+00 0.000000e+00
## CSI065
                 0
                          0 0.000000e+00 0.000000e+00 0.000000e+00
                          0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST076
                 0
              Otu02752 Otu02753
##
                                    Ot:1102754
                                                 Ot:1102755
                                                              Ot:1102756
  CSI001 0.0000000000
                              0 4.690652e-05 2.345326e-05 0.0000000000
  CSI012 0.0000000000
                              0 3.449941e-05 3.449941e-05 0.0000000000
  CSI022 0.0001290933
                              CSI044 0.0000000000
                              CSI055 0.0000000000
                              0 0.00000e+00 0.000000e+00 0.000000000
  CSI065 0.0000000000
                              0 0.000000e+00 0.000000e+00 0.0009076813
##
  CSI076 0.0000000000
                              0 0.00000e+00 0.000000e+00 0.000000000
##
              0tu02757
                           Otu02758
                                        Otu02759 Otu02760 Otu02761 Otu02762
  CSI001 0.0000000000 7.035977e-05 0.000000e+00
                                                        0
                                                                 0
                                                                          0
  CSI012 0.0000000000 3.449941e-05 0.000000e+00
                                                        0
                                                                 0
                                                                          0
  CSI022 0.0000000000 4.303111e-05 0.000000e+00
                                                                 0
                                                        0
                                                                          0
  CSI044 0.0000000000 0.000000e+00 0.000000e+00
                                                        0
                                                                 0
                                                                          0
## CSI055 0.0000000000 0.000000e+00 1.075708e-04
                                                        0
                                                                 0
                                                                          0
## CSI065 0.0001134602 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
```

```
## CSI076 0.0000000000 0.000000e+00 0.000000e+00
                                                           0
##
          Otu02763 Otu02764 Otu02765 Otu02766 Otu02767 Otu02768 Otu02769
## CSI001
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI012
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI022
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
                           0
## CSI044
                  0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
                           0
## CSI055
                  0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI065
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI076
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
##
              Otu02770
                            Otu02771 Otu02772
                                                   Otu02773 Otu02774 Otu02775
## CSI001 0.0000000000 2.345326e-05
                                             0 9.381303e-05
                                                                    0
## CSI012 0.000000000 0.000000e+00
                                                                    0
                                             0 2.587456e-04
                                                                              0
  CSI022 0.0000000000 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI044 0.0000000000 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI055 0.0000000000 0.000000e+00
                                                                    0
                                             0 0.00000e+00
                                                                              0
   CSI065 0.0000000000 0.000000e+00
                                             0 0.00000e+00
                                                                    0
                                                                              0
   CSI076 0.0000000000 2.890675e-05
                                                                    0
                                             0 5.781349e-05
                                                                              0
##
          Otu02776
                        Otu02777 Otu02778
                                               Otu02779
                                                             Otu02780 Otu02781
## CSI001
                  0 2.345326e-05
                                         0 0.000000e+00 2.110793e-04
                                                                              0
## CSI012
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
##
  CSI022
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
  CSI044
                                         0 0.000000e+00 0.000000e+00
                  0 0.00000e+00
                                         0 2.151417e-05 1.075708e-04
## CSI055
                  0 0.00000e+00
                                                                              0
                                         0 9.833214e-04 0.000000e+00
  CSI065
                  0 0.00000e+00
                                                                              0
##
  CSI076
                  0 0.00000e+00
                                         0 0.000000e+00 8.672024e-05
                                                                              0
              Otu02782
                            Otu02783 Otu02784
                                                   Otu02785
                                                                 Otu02786
## CSI001 0.000000e+00 0.0000000000
                                             0 2.345326e-05 0.000000e+00
   CSI012 0.000000e+00 0.0000000000
                                             0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00 0.0000000000
                                             0 0.000000e+00 4.303111e-05
   CSI044 0.000000e+00 0.0000000000
                                             0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.0001721133
                                             0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.0000000000
                                             0 0.000000e+00 0.000000e+00
   CSI076 2.890675e-05 0.0000000000
                                             0 0.000000e+00 0.000000e+00
##
          Otu02787
                        Otu02788
                                     Otu02789
                                                   Otu02790 Otu02791 Otu02792
## CSI001
                  0 0.000000e+00 4.690652e-05 0.000000e+00
                                                                    0
                                                                              0
  CSI012
                  0 0.000000e+00 1.724971e-05 0.000000e+00
                                                                    0
                                                                              0
##
## CSI022
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
## CSI044
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                  0 2.151417e-05 0.000000e+00 0.000000e+00
                                                                    0
   CST055
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
##
  CST065
                                                                              0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
   CST076
##
              Otu02793 Otu02794 Otu02795 Otu02796
                                                        0 \pm 1102797 \quad 0 \pm 1102798
   CSI001 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00
                                                                          0
   CSI012 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
  CSI022 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
## CSI044 0.000000e+00
                               0
                                         0
                                                                          0
                                                  0 0.00000e+00
   CSI055 1.721133e-04
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI065 9.076813e-04
                               0
                                         0
                                                  0 3.782005e-04
                                                                          0
   CSI076 8.672024e-05
                               0
                                         0
                                                  0 0.000000e+00
                                                                          0
##
              Otu02799 Otu02800 Otu02801 Otu02802 Otu02803
                                                                  Otu02804
## CSI001 2.345326e-05
                                         0
                                                  0
                                                            0 0.000000e+00
                               0
                                                  0
## CSI012 5.174912e-05
                               0
                                         0
                                                            0 1.724971e-05
## CSI022 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
## CSI044 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
```

```
## CSI055 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 1.936275e-04
   CSI065 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
                                                            0 8.672024e-05
   CSI076 0.000000e+00
                                         0
                                                   0
##
          Otu02805 Otu02806
                                 Otu02807 Otu02808 Otu02809
                                                                   Otu02810
##
  CST001
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.00000e+00
  CSI012
                  0
                                                   0
##
                           0 0.00000e+00
                                                            0 0.00000e+00
                                                   0
## CSI022
                  0
                           0 2.151556e-05
                                                            0 0.00000e+00
## CSI044
                  0
                           0 0.00000e+00
                                                   0
                                                            0 0.00000e+00
   CSI055
                  0
                             0.000000e+00
                                                   0
                                                            0 2.151417e-05
                                                   0
##
   CSI065
                  \cap
                           0 0.00000e+00
                                                            0 0.00000e+00
   CSI076
                  0
                           0 0.00000e+00
                                                   0
                                                            0 0.00000e+00
##
              Otu02811
                            Otu02812
                                          Otu02813 Otu02814
                                                                 Otu02815
##
   CSI001 2.345326e-05 0.000000e+00 7.035977e-05
                                                           0 0.000000e+00
   CSI012 0.000000e+00 0.000000e+00 1.724971e-05
                                                           0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00 2.151556e-04
                                                           0 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
   CSI055 0.000000e+00 4.302833e-05 0.000000e+00
                                                           0 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                           0.0.000000e+00
##
          Otu02816 Otu02817
                                 Otu02818 Otu02819 Otu02820 Otu02821 Otu02822
##
  CSI001
                  0
                           0 0.000000e+00
                                                   Ω
                                                            Λ
                                                                      0
                                                                               0
## CSI012
                  0
                                                   0
                                                            0
                                                                      0
                                                                                0
                           0 1.724971e-05
## CSI022
                  0
                                                   0
                                                            0
                                                                               0
                           0 1.075778e-04
                                                                      0
                                                   0
  CSI044
                  0
                           0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
                                                            0
                                                                                0
##
  CST055
                  0
                           0 0.000000e+00
                                                   0
                                                                      0
   CSI065
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI076
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
                                                                                0
##
##
          Otu02823
                        Otu02824 Otu02825 Otu02826
                                                    0tu02827
                                                                   Otu02828
                                         0
                                                   0
##
   CSI001
                  0 2.345326e-05
                                                            0 2.345326e-05
  CSI012
                  0 0.00000e+00
                                         0
                                                   0
                                                            0 1.379977e-04
##
   CSI022
                  0 0.00000e+00
                                         0
                                                   0
                                                              3.442489e-04
##
   CSI044
                  0 0.000000e+00
                                         0
                                                   0
                                                              0.000000e+00
##
   CSI055
                  0 0.000000e+00
                                         0
                                                   0
                                                              0.000000e+00
                                                   0
##
   CSI065
                  0 0.000000e+00
                                         0
                                                              0.000000e+00
                    0.000000e+00
                                         0
                                                   0
                                                              0.000000e+00
##
   CSI076
                  0
                                                            0
          Otu02829
                        Otu02830 Otu02831 Otu02832 Otu02833
##
                                                                   Ot:1102834
## CSI001
                  0 0.000000000
                                         0
                                                   0
                                                            0 0.00000e+00
## CSI012
                  0 0.000000000
                                         0
                                                   0
                                                            0 1.724971e-05
  CSI022
                  0 0.000000000
                                         0
                                                   0
                                                            0 0.000000e+00
                                         0
                                                   0
##
  CSI044
                  0 0.000000000
                                                            0.000000e+00
                                         0
                                                   0
   CSI055
                  0.0000000000
                                                            0 4.302833e-05
                                         0
                                                   0
                                                            0 0.00000e+00
##
   CST065
                  0.000000000
##
   CSI076
                  0 0.000000000
                                         0
                                                   0
                                                            0 0.00000e+00
                                               Otu02838 Otu02839 Otu02840
##
              Otu02835 Otu02836 Otu02837
   CSI001 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                                                                 0
   CSI012 3.449941e-05
                               0
                                                                          0
                                         0 0.00000e+00
   CSI022 6.454667e-05
                               0
                                         0 8.606222e-05
                                                                 0
                                                                          0
                               0
                                                                 0
                                                                          0
   CSI044 0.000000e+00
                                         0 0.00000e+00
   CSI055 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                 0
                                                                          0
   CSI065 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI076 0.000000e+00
                               0
                                                                 0
##
                                         0.0.000000e+00
                                                                          0
##
          Otu02841 Otu02842 Otu02843 Otu02844 Otu02845 Otu02846
                                                                        0tu02847
## CSI001
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0.000000e+00
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.00000e+00
```

```
## CSI022
                  0
                           0
                                                                 0 0.00000e+00
                  0
  CST044
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
  CSI055
                  0
                           0
                                              0
                                                        0
                                                                 0 0.00000e+00
  CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 3.782005e-05
##
##
   CST076
                  0
                                     0
                                              0
                                                        0
                                                                 0 5.781349e-05
                            Otu02849 Otu02850 Otu02851 Otu02852 Otu02853
##
              Otu02848
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
  CSI012 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
                                             0
                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                                       0
                                                                          0
   CSI055 4.302833e-05 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI076 0.000000e+00 2.890675e-05
                                             0
                                                       0
                                                                0
                                                                          0
##
              Otu02854 Otu02855
                                      Otu02856 Otu02857
                                                             Otu02858
  CSI001 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
##
   CSI012 1.724971e-05
                               0 0.00000e+00
                                                       0 0.00000e+00
   CSI022 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
   CSI044 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
   CSI055 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000e+00
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                       0 7.564010e-05
##
   CSI076 2.890675e-05
                               0 0.00000e+00
                                                       0 2.890675e-05
                            Otu02860 Otu02861 Otu02862 Otu02863 Otu02864
##
              Ot:1102859
  CSI001 2.345326e-05 0.000000e+00
                                             0
                                                                0
                                                       0
                                                                          0
   CSI012 0.000000e+00 0.000000e+00
                                                                0
                                             0
                                                       0
                                                                          0
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI055 0.000000e+00 4.302833e-05
                                             0
                                                       0
                                                                0
                                                                          0
                                                                0
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                          0
                                                                0
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                          0
##
##
              Otu02865
                            Otu02866
                                          Otu02867 Otu02868 Otu02869
                                                                      Otu02870
##
   CSI001 0.0001172663 1.876261e-04 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI012 0.0001034982 8.624853e-05 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI022 0.0001721244 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI044 0.000000000 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI055 0.0000000000 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI065 0.0000000000 0.000000e+00 0.000000e+00
                                                                     0
                                                           0
                                                                              0
##
   CSI076 0.0000000000 0.000000e+00 5.781349e-05
                                                           0
                                                                     0
##
              Otu02871 Otu02872
                                      Otu02873 Otu02874 Otu02875 Otu02876
   CSI001 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
   CSI012 0.000000e+00
                               0 0.000000e+00
                                                                0
                                                                          0
                                                       0
   CSI022 0.000000e+00
                                                                          0
                               0 0.00000e+00
                                                       0
                                                                0
   CSI044 0.000000e+00
                                                       0
                                                                0
                                                                          0
                               0 0.000000e+00
   CSI055 4.087692e-04
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
                                                                0
                                                                          0
   CSI065 0.000000e+00
                                                       Λ
                               0 1.134602e-04
   CSI076 2.890675e-05
                               0 3.179742e-04
                                                                0
                            Otu02878
##
              Otu02877
                                          Otu02879
                                                        Otu02880 Otu02881
   CSI001 0.000000e+00 0.000000e+00 2.345326e-05 7.035977e-05
                                                                         0
                                                                         0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI055 6.454250e-05 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
  CSI076 0.000000e+00 2.890675e-05 0.000000e+00 0.000000e+00
                                                                         0
##
              Otu02882
                            Otu02883
                                          Otu02884 Otu02885
                                                                 Otu02886
```

```
## CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 2.345326e-05
  CSI012 0.000000e+00 0.000000e+00 8.624853e-05
                                                          0.0.000000e+00
   CSI022 2.151556e-05 0.000000e+00 6.454667e-05
                                                          0 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
   CSI055 1.290850e-04 4.302833e-05 0.000000e+00
                                                          0.0.000000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
                                                            Otu02891 Otu02892
##
              Ot:1102887
                            Otu02888 Otu02889 Otu02890
  CSI001 2.345326e-05 0.000000e+00
                                            0
                                                      0 9.381303e-05
                                                                             0
                                            0
   CSI012 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI022 0.000000e+00 0.000000e+00
                                            0
                                                      0 4.303111e-05
                                                                             0
  CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI055 0.000000e+00 2.151417e-05
                                            0
                                                      0 0.000000e+00
                                                                             0
                                                      0 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                                             0
  CSI076 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                                                             0
##
##
          Otu02893
                        Otu02894 Otu02895 Otu02896 Otu02897 Otu02898
## CSI001
                 0 0.000000000
                                        0
                                                 0
                                                           0
                                                                    0
  CSI012
                 0.0000000000
                                        0
                                                  0
                                                           0
                                                                    0
  CSI022
##
                 0.0000000000
                                        0
                                                  0
                                                           0
                                                                    0
  CSI044
                 0 0.000000000
                                        0
                                                  0
                                                           0
                                                                    0
##
  CSI055
                 0 0.000000000
                                        0
                                                  0
                                                           Λ
                                                                    0
                                        0
                                                           0
  CST065
                 0.0000000000
                                                  0
                                                                    0
##
  CSI076
                 0 0.0000000000
                                        0
                                                  0
                                                           0
                                                                    0
##
              Otu02899 Otu02900 Otu02901
                                              Otu02902
                                                            Otu02903 Otu02904
## CSI001 2.345326e-05
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
  CSI012 1.724971e-05
                               0
                                        0 1.724971e-05 1.034982e-04
                                                                             0
  CSI022 4.303111e-05
                               0
                                        0 0.000000e+00 4.303111e-05
                                                                             0
   CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
  CSI055 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
  CSI065 0.000000e+00
                               0
                                        0 0.000000e+00 3.782005e-05
                                                                             0
##
  CSI076 0.000000e+00
                               0
                                        0 0.000000e+00 2.890675e-05
                                                                             0
##
              Otu02905 Otu02906
                                     Otu02907 Otu02908 Otu02909
                                                                     0 \pm 1102910
##
  CSI001 2.345326e-05
                               0 2.110793e-04
                                                      0
                                                               0 0.00000e+00
  CSI012 3.449941e-05
                               0 1.034982e-04
                                                      0
                                                               0 1.724971e-05
   CSI022 2.366711e-04
                               0 2.151556e-05
                                                      0
                                                               0 0.00000e+00
  CSI044 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI055 2.151417e-05
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI065 0.000000e+00
                               0 0.00000e+00
                                                               0 0.000000e+00
##
                                                      Ω
  CSI076 8.672024e-05
                               0 0.000000e+00
##
                                                      0
                                                               0.000000e+00
##
                                                   Otu02914 Otu02915
              Otu02911 Otu02912
                                     Ot:1102913
  CSI001 0.000000e+00
                               0 0.000000e+00 0.000000000
                                                                   0
## CSI012 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                   0
  CSI022 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                   0
  CSI044 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                   0
  CSI055 7.099675e-04
                               0 2.151417e-05 0.0002796842
                                                                   0
  CSI065 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                   0
##
  CSI076 8.672024e-05
                               0 0.000000e+00 0.0000000000
                                                                   0
##
              Otu02916
                            Otu02917 Otu02918
                                                   Otu02919
                                                                Otu02920
  CSI001 0.000000e+00 0.000000e+00
                                            0 0.000000000 0.000000e+00
  CSI012 0.000000e+00 0.000000e+00
                                            0 0.000000000 0.000000e+00
                                            0 0.000000000 0.000000e+00
  CSI022 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000000 0.000000e+00
## CSI055 8.605667e-04 2.151417e-05
                                            0 0.000000000 0.000000e+00
## CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000000 0.000000e+00
```

```
##
             Otu02921 Otu02922
                                   Otu02923 Otu02924
                                                         Otu02925 Otu02926
## CSI001 0.000000e+00
                             0 0.00000e+00
                                                   0 0.000000e+00
                                                                         0
                              0 0.00000e+00
## CSI012 0.000000e+00
                                                   0 8.624853e-05
                                                                         0
## CSI022 0.000000e+00
                              0 0.00000e+00
                                                   0 6.454667e-05
                                                                         0
## CSI044 0.000000e+00
                              0 0.00000e+00
                                                   0 0.000000e+00
                                                                         0
## CSI055 0.000000e+00
                              0 0.00000e+00
                                                   0 0.00000e+00
## CSI065 0.000000e+00
                              0 7.56401e-05
                                                   0.000000e+00
                                                                         0
## CSI076 0.000000e+00
                              0 0.00000e+00
                                                   0 0.000000e+00
                                                                         0
                       Otu02928
##
          Otu02927
                                  Otu02929 Otu02930
                                                        Otu02931 Otu02932
## CSI001
                 0 0.000000e+00 0.00000000
                                                  0 2.345326e-05
                                                                        0
                 0 0.000000e+00 0.00000000
## CSI012
                                                  0 0.000000e+00
                                                                        0
## CSI022
                 0 0.000000e+00 0.00000000
                                                  0 0.000000e+00
                                                                        0
                                                  0 0.00000e+00
## CSI044
                 0 0.000000e+00 0.00000000
                                                                        0
## CSI055
                 0 6.454250e-05 0.00051634
                                                                        0
                                                  0.0.000000e+00
## CSI065
                 0 0.000000e+00 0.00000000
                                                  0 0.00000e+00
                                                                        0
                                                                        0
## CSI076
                 0 5.781349e-05 0.00000000
                                                  0 0.00000e+00
##
              Otu02933
                           Otu02934 Otu02935 Otu02936
                                                          Otu02937 Otu02938
## CSI001 0.000000000 0.000000e+00
                                          0
                                                    0 4.690652e-05
                                                                          0
## CSI012 0.000000000 0.000000e+00
                                           0
                                                    0 6.899883e-05
                                                                          0
## CSI022 0.0000000000 0.000000e+00
                                           0
                                                    0 0.000000e+00
                                                                          0
## CSI044 0.000000000 0.000000e+00
                                           0
                                                    0 0.000000e+00
## CSI055 0.000000000 3.872550e-04
                                           Λ
                                                    0.000000e+00
                                                                          0
## CSI065 0.0001134602 0.000000e+00
                                           0
                                                    0.000000e+00
                                           0
## CSI076 0.000000000 0.000000e+00
                                                    0 0.000000e+00
             Otu02939
                           Otu02940 Otu02941 Otu02942 Otu02943 Otu02944
## CSI001 0.000000e+00 0.000000e+00
                                           0
                                                    0
                                                                      0
                                                             0
## CSI012 0.000000e+00 0.000000e+00
                                           0
                                                    0
                                                             0
                                                                      0
                                                             0
## CSI022 0.000000e+00 0.000000e+00
                                           0
                                                    0
                                                                      0
  CSI044 0.000000e+00 0.000000e+00
                                           0
                                                    0
                                                             0
                                                                      0
  CSI055 5.378542e-04 4.302833e-05
                                           0
                                                    0
                                                             0
                                                                      0
  CSI065 0.000000e+00 0.000000e+00
                                           0
                                                    0
                                                             0
                                                                      0
   CSI076 0.000000e+00 0.000000e+00
                                           0
                                                    0
                                                             0
                                                                      0
         Otu02945
                     Otu02946
##
                                    Otu02947
                                                 Otu02948 Otu02949 Otu02950
## CSI001
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                 0
## CSI012
                 0 3.449941e-05 1.724971e-05 1.724971e-05
                                                                 0
                                                                          0
## CSI022
                 0 4.303111e-05 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
## CSI044
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
                 0 0.000000e+00 6.454250e-05 0.000000e+00
                                                                 0
  CST055
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                 0
##
  CST065
                                                                          0
                 0 0.000000e+00 4.914147e-04 0.000000e+00
  CST076
##
                          Otu02952
                                       Otu02953
                                                    Otu02954 Otu02955
            0t.1102951
  CSI001 0.000000000 2.345326e-05 0.000000e+00 0.000000e+00
                                                                    0
  CSI012 0.000000000 8.624853e-05 1.724971e-05 0.000000e+00
                                                                    0
  CSI022 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
  CSI044 0.000000000 0.000000e+00 0.000000e+00 6.111867e-04
                                                                    0
   CSI055 0.000000000 0.000000e+00 4.302833e-05 4.302833e-05
                                                                    0
   CSI065 0.000000000 0.000000e+00 0.000000e+00 1.134602e-04
                                                                    0
  CSI076 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
##
          Otu02956 Otu02957 Otu02958
                                        Otu02959 Otu02960 Otu02961 Otu02962
## CSI001
                 0
                         0
                                   0 0.000000e+00
                                                         0
                                                                  0
                                                                           0
                          0
## CSI012
                 0
                                   0 6.899883e-05
                                                         0
                                                                  0
                                                                           0
## CSI022
                 0
                          0
                                  0 0.000000e+00
                                                         0
                                                                  0
                                                                           0
## CSI044
                 0
                         0
                                  0 0.000000e+00
                                                         0
                                                                  0
                                                                           0
```

```
## CSI055
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
                                     0 0.000000e+00
  CST065
                           0
                                                            0
                                                                               0
##
                  0
                                                                     0
##
   CSI076
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
##
          Otu02963
                        Otu02964 Otu02965
                                               Otu02966
                                                             0tu02967
##
   CSI001
                  0 4.690652e-05
                                         0 0.000000e+00 0.000000e+00
   CSI012
                                         0 0.000000e+00 3.449941e-05
##
                  0 0.00000e+00
   CSI022
                  0 0.000000e+00
                                         0 2.151556e-05 0.000000e+00
                  0 0.00000e+00
##
  CSI044
                                         0 0.000000e+00 0.000000e+00
##
   CSI055
                  0 0.000000e+00
                                         0 4.302833e-05 0.000000e+00
##
   CSI065
                  0 0.000000e+00
                                          0.000000e+00 0.000000e+00
   CSI076
                  0 0.000000e+00
                                           0.000000e+00 0.000000e+00
                                               Otu02971 Otu02972
##
              Otu02968 Otu02969
                                 Otu02970
                                                                      Otu02973
##
   CSI001 0.000000e+00
                               0
                                         0
                                          7.035977e-05
                                                                0 0.000000e+00
   CSI012 0.000000e+00
                               0
                                          1.724971e-05
                                                                0 0.00000e+00
   CSI022 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
   CSI044 3.943140e-05
                               0
                                           0.000000e+00
                                                                0 0.00000e+00
                               0
   CSI055 0.000000e+00
                                          0.000000e+00
                                                                0 0.00000e+00
                                         0
   CSI065 0.000000e+00
                               0
                                           3.782005e-05
                                                                0 0.00000e+00
                                                                0 5.781349e-05
                                          0.000000e+00
##
   CST076 0.000000e+00
                               0
                                         0
##
          0tu02974
                        Otu02975 Otu02976 Otu02977
                                                        Otu02978
                                                                      Otu02979
##
   CSI001
                  0 0.000000000
                                         0
                                                  0 0.000000e+00 0.000000e+00
   CSI012
                  0 0.0006554889
                                         0
                                                  0 0.000000e+00 0.000000e+00
                                                  0 0.000000e+00 0.000000e+00
  CSI022
                                         0
##
                  0 0.000000000
                                         0
                                                    0.000000e+00 0.000000e+00
   CSI044
                  0 0.000000000
                                         0
##
   CST055
                  0 0.000000000
                                                  0 0.000000e+00 0.000000e+00
   CSI065
                  0.0000000000
                                         0
                                                    0.000000e+00 3.782005e-05
   CSI076
                                         0
                                                  0 5.781349e-05 5.781349e-05
##
                  0 0.000000000
##
              Otu02980 Otu02981 Otu02982
                                              0tu02983
                                                            Otu02984 Otu02985
   CSI001 0.0000000000
                               0
                                         0 0.00000e+00 0.000000e+00
                                                                             0
##
   CSI012 0.0000000000
                               0
                                         0 0.00000e+00 0.000000e+00
                                                                             0
   CSI022 0.0000000000
                               0
                                         0 0.00000e+00 0.000000e+00
                                                                             0
   CSI044 0.0000000000
                               0
                                          0.00000e+00 0.000000e+00
                                                                             0
   CSI055 0.0004948258
                               0
                                           6.45425e-05 0.000000e+00
                                                                             0
                               0
                                                                             0
   CSI065 0.0000000000
                                           0.00000e+00 0.000000e+00
   CSI076 0.0000000000
                                           0.00000e+00 0.000000e+00
                                                                             0
##
                                 Otu02988
          Otu02986 Otu02987
                                               Otu02989 Otu02990
                                                                      Otu02991
##
## CSI001
                  0
                           0 0.000000e+00 2.345326e-05
                                                                0 0.00000e+00
##
  CSI012
                  0
                           0 1.724971e-05 0.000000e+00
                                                                0 0.000000e+00
   CSI022
                  0
                             0.000000e+00 4.303111e-05
                                                                0.000000e+00
                  Λ
                             0.000000e+00 0.000000e+00
##
  CST044
                                                                0 0.00000e+00
                             1.505992e-04 0.000000e+00
   CSI055
                  0
                                                                0 0.00000e+00
   CSI065
                  0
                             0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
##
##
   CST076
                  0
                           0
                             0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
          Otu02992 Otu02993
                             Otu02994 Otu02995
##
                                                    Otu02996 Otu02997
##
  CSI001
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
  CSI012
                  0
                           0
                                    0
                                                                     0
##
                                              0 0.00000e+00
##
   CSI022
                  0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                  0
                           0
                                                                     0
##
   CSI044
                                    0
                                              0 0.00000e+00
##
   CSI055
                  0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
##
   CSI065
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                     0
##
   CST076
                  0
                           0
                                     0
                                              0 2 890675e-05
##
              Otu02998
                            Otu02999
                                          Otu03000 Otu03001
                                                                 Otu03002
  CSI001 0.000000e+00 4.690652e-05 4.690652e-05
                                                           0 0.00000e+00
## CSI012 0.000000e+00 5.174912e-05 1.034982e-04
                                                           0 0.00000e+00
```

```
## CSI022 2.151556e-05 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0.0.000000e+00
   CSI055 0.000000e+00 0.000000e+00 2.151417e-05
                                                          0 0.00000e+00
  CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0.0.000000e+00
##
   CSI076 2.601607e-04 2.890675e-05 0.000000e+00
                                                          0.0.000000e+00
              Otu03003
                            Otu03004
                                         Otu03005 Otu03006 Otu03007
##
  CSI001 1.172663e-04 0.000000e+00 7.035977e-05
                                                          0
                                                                   0
  CSI012 5.174912e-05 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI022 4.303111e-05 0.000000e+00 0.000000e+00
                                                          Λ
                                                                   0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          \cap
                                                                   0
   CSI055 0.000000e+00 2.151417e-05 4.302833e-05
                                                          0
                                                                   0
   CSI065 0.000000e+00 1.891003e-04 0.000000e+00
                                                          0
                                                                   0
   CSI076 0.000000e+00 8.672024e-05 0.000000e+00
                                                          0
                                                                   0
              Otu03008
##
                            Otu03009 Otu03010 Otu03011
                                                            Otu03012 Otu03013
  CSI001 4.690652e-05 2.345326e-05
                                            0
                                                      0 7.035977e-05
                                                                             0
   CSI012 0.000000e+00 0.000000e+00
                                            0
                                                      0 2.932450e-04
                                                                             0
   CSI022 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
  CSI055 1.936275e-04 1.075708e-04
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
##
   CSI076 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                                                             0
          Otu03014
##
                       Ot:1103015
                                     Ot:1103016
                                                   0t1103017
                                                                Ot:1103018
## CSI001
                 0 2.345326e-05 2.345326e-05 2.345326e-05 2.345326e-05
  CSI012
                 0 1.724971e-05 0.000000e+00 1.724971e-05 1.207479e-04
## CSI022
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI055
   CSI065
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI076
##
          Otu03019
                   Otu03020 Otu03021
                                          Otu03022 Otu03023
                                                                 Otu03024
## CSI001
                 0
                           0
                                    0 0.00000e+00
                                                           0 0.000000e+00
##
  CSI012
                 0
                           0
                                    0 1.724971e-05
                                                           0 0.000000e+00
  CSI022
                 0
                           0
                                    0 0.000000e+00
                                                           0 0.00000e+00
                 0
                           0
  CSI044
                                    0 0.000000e+00
                                                           0 0.00000e+00
##
  CSI055
                 0
                           0
                                    0 0.000000e+00
                                                           0 1.936275e-04
                                    0 0.000000e+00
                           0
##
  CST065
                 0
                                                           0.000000e+00
##
  CSI076
                 0
                           0
                                    0 0.00000e+00
                                                           0 8.093889e-04
##
              Otu03025
                            Otu03026 Otu03027
                                                   Otu03028
                                                                Ot:1103029
  CSI001 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.0000000000
                                            0 0.00000e+00 0.000000000
  CSI012 0.000000e+00 3.449941e-05
   CSI022 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000000
  CSI044 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.0000000000
   CSI055 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.0000000000
   CSI065 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000000
   CSI076 0.000000e+00 0.000000e+00
                                            0 2.890675e-05 0.0000000000
##
              Otu03030 Otu03031
                                     Otu03032
                                                  Otu03033 Otu03034 Otu03035
  CSI001 0.000000e+00
                               0 2.345326e-05 0.00000e+00
                                                                  0
                                                                            0
                                                                  0
                                                                            0
   CSI012 0.000000e+00
                               0 0.000000e+00 0.00000e+00
  CSI022 0.000000e+00
                               0 8.606222e-05 0.00000e+00
                                                                  0
                                                                            0
  CSI044 0.000000e+00
                               0 0.000000e+00 1.97157e-05
                                                                  0
                                                                            0
                               0 0.000000e+00 0.00000e+00
                                                                  0
                                                                            0
   CSI055 0.000000e+00
  CSI065 5.294807e-04
                               0 0.000000e+00 0.00000e+00
                                                                  0
                                                                            0
##
  CSI076 5.781349e-05
                               0 0.000000e+00 0.00000e+00
                                                                  0
                                                                            0
##
          Otu03036
                       Otu03037 Otu03038
                                              Otu03039 Otu03040 Otu03041
```

```
## CSI001
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CST012
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
##
                                                                            0
                  0 0.000000e+00
                                          0 0.00000e+00
  CSI022
                                                                  0
                                                                            0
                                                                  0
  CSI044
                  0 1.971570e-05
                                          0 0.00000e+00
                                                                            0
##
##
   CSI055
                    1.290850e-04
                                          0 0.000000e+00
                                                                  0
                                                                            0
                  0 0.000000e+00
                                          0 3.782005e-05
                                                                  0
                                                                            0
##
  CSI065
                  0 0.000000e+00
                                                                  0
##
   CSI076
                                          0 0.00000e+00
##
          Otu03042 Otu03043
                                 Otu03044 Otu03045 Otu03046 Otu03047 Otu03048
## CSI001
                  0
                            0.000000000
                                                  0
                                                            Λ
                                                                      0
                                                                                0
                                                  0
                                                            0
                                                                      0
##
  CSI012
                  0
                            0 0.000000000
                                                                                0
  CSI022
                  0
                            0 0.000000000
                                                  0
                                                            0
                                                                      0
                                                                                0
                             0.000000000
  CSI044
                  0
                                                  0
                                                            0
                                                                      0
##
                            0
                                                                                0
##
   CSI055
                  0
                            0 0.000129085
                                                  0
                                                            0
                                                                      0
                                                                                0
                            0.000000000
                                                  0
                                                                      0
##
   CSI065
                  0
                                                            0
                                                                                0
##
  CSI076
                  0
                            0.000000000
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           Otu03049 Otu03050
                                  Otu03051
                                                Otu03052 Otu03053
                                                                        Otu03054
## CSI001
                  0
                                                                  0 0.000000e+00
                            0 0.000000e+00 2.345326e-05
##
   CSI012
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0 6.899883e-05
  CSI022
                  0
                            0 0.000000e+00 0.000000e+00
##
                                                                  0 4.303111e-05
##
   CSI044
                  0
                              0.000000e+00 0.000000e+00
                                                                  0 0.00000e+00
##
   CSI055
                  0
                            0 4.302833e-05 6.454250e-05
                                                                  0 5.808825e-04
   CSI065
                            0 0.000000e+00 0.000000e+00
                                                                  0 3.782005e-05
##
  CSI076
                            0 0.000000e+00 0.000000e+00
                                                                  0 0.000000e+00
##
                  0
               Otu03055 Otu03056 Otu03057 Otu03058
##
                                                          Otu03059
                                                                        Ot.1103060
  CSI001 0.000000e+00
##
                                0
                                          0
                                                    0 0.000000e+00 2.579858e-04
   CSI012 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 3.449941e-05
   CSI022 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00
                                0
                                          0
   CSI055 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
           Otu03061
                         Otu03062 Otu03063
                                                Otu03064 Otu03065 Otu03066
##
  CSI001
                  0 0.000000000
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CSI012
                  0 0.0000000000
                                          0 0.000000e+00
                                                                  0
                                                                            0
##
   CSI022
                  0 0.000000000
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI044
                  0 0.000000000
                                          0 0.00000e+00
                                                                  0
##
                                                                            0
##
   CSI055
                  0 0.000000000
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
  CSI065
                  0.000000000
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI076
                  0 0.0001445337
                                          0 2.601607e-04
                                                                  0
                                                                            0
##
##
               Otu03067 Otu03068 Otu03069 Otu03070 Otu03071 Otu03072 Otu03073
  CSI001 0.000000e+00
                                                             0
                                0
                                          0
                                                    0
                                                                       0
  CSI012 3.449941e-05
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.000000e+00
                                                                                 0
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                0
                                          0
                                                    0
                                                             0
                                                                       Λ
                                                                                 0
   CSI044 0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                             0
                                                                                 0
                                                    0
                                                                       0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
           Otu03074 Otu03075 Otu03076 Otu03077 Otu03078 Otu03079
##
                                                                     Otu03080
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
  CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
```

```
## CSI076
                  0
                           0
                                     0
                                                                           0
##
          Otu03081 Otu03082 Otu03083 Otu03084
                                                    Ot:1103085
                                                                  Ot.1103086
## CSI001
                  0
                           0
                                     0
                                              0 0.000000e+00 9.381303e-05
## CSI012
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
  CSI022
                  0
                           0
                                     0
                                              0 0.000000e+00 2.151556e-05
                  0
                           0
                                              0 0.000000e+00 0.000000e+00
  CSI044
                                     0
##
                           0
                                              0 0.000000e+00 0.000000e+00
   CSI055
                  0
                                     0
## CSI065
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
##
  CSI076
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                            Otu03088
##
              Otu03087
                                          Otu03089 Otu03090 Otu03091
   CSI001 0.000000e+00 1.172663e-04 0.000000e+00
                                                                    0
   CSI012 0.000000e+00 1.552474e-04 1.724971e-05
                                                                    0
                                                           0
   CSI022 0.000000e+00 8.606222e-05 0.000000e+00
                                                           0
                                                                    0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
##
              Otu03092
                            Otu03093 Otu03094 Otu03095 Otu03096
                                                                       Otu03097
  CSI001 7.035977e-05 0.000000e+00
##
                                             0
                                                      0
                                                                0 0.000000000
  CSI012 0.000000e+00 5.174912e-05
                                             0
                                                      0
                                                                0 0.000000000
   CSI022 4.303111e-05 0.000000e+00
                                             0
                                                      0
                                                                0 0.000000000
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.0002168727
  CSI055 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.0002581700
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.0006051208
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.000000000
              Otu03098 Otu03099 Otu03100
                                               Otu03101 Otu03102
                                                                      Otu03103
##
  CSI001 7.035977e-05
                               0
                                         0 0.000000000
                                                                0 0.00000e+00
   CSI012 0.000000e+00
                               0
                                         0 0.000000000
                                                                0 0.00000e+00
   CSI022 0.000000e+00
                               0
                                         0 0.000000000
                                                                0 0.00000e+00
   CSI044 0.000000e+00
                               0
                                         0 0.000000000
                                                                0 0.00000e+00
   CSI055 6.454250e-05
                               0
                                         0 0.0000645425
                                                                0 0.00000e+00
   CSI065 0.000000e+00
                               0
                                         0 0.0001512802
                                                                0 3.782005e-05
   CSI076 0.000000e+00
                                         0 0.000000000
                                                                0 2.890675e-05
##
          Otu03104 Otu03105
                                 Otu03106
                                               Otu03107 Otu03108 Otu03109
  CSI001
                  0
                           0 1.407195e-04 0.000000e+00
                                                                0
                                                                          0
##
  CSI012
                  0
                           0 3.449941e-05 0.000000e+00
                                                                0
                                                                          0
##
  CSI022
                  0
                           0 4.303111e-05 0.000000e+00
                                                                0
                                                                          0
## CSI044
                  Ω
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                  0
                             0.000000e+00 0.000000e+00
                                                                0
                                                                          0
   CST055
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
##
  CST065
   CSI076
                           0 0.000000e+00 0.000000e+00
                                                                0
          Otu03110 Otu03111 Otu03112 Otu03113 Otu03114
##
                                                              Otu03115 Otu03116
##
   CSI001
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                           0
                                              0
                                                                               0
  CSI012
                  0
                                     0
                                                        0 0.00000e+00
##
  CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
  CSI044
                  0
                           0
                                     0
                                              0
                                                                               0
##
                                                        0 0.00000e+00
##
   CSI055
                  0
                           0
                                     0
                                              0
                                                        0 1.290850e-04
                                                                               0
                           0
                                              0
##
   CSI065
                  0
                                     0
                                                        0 0.00000e+00
                                                                               0
##
   CST076
                  0
                           0
                                     0
                                              0
                                                        0 5.781349e-05
                                                                               0
##
              Otu03117 Otu03118 Otu03119 Otu03120 Otu03121
                                                                  Otu03122
  CSI001 0.000000e+00
                                                  0
                                                            0 0.000000e+00
                               0
                                         0
## CSI012 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
## CSI022 0.000000e+00
                               0
                                         0
                                                  0
                                                            0.000000e+00
## CSI044 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
```

```
## CSI055 2.151417e-05
                                0
                                         0
                                                   0
                                                            0 4.302833e-05
   CSI065 0.000000e+00
                                0
                                         0
                                                            0 0.00000e+00
                                                   0
                                                            0 0.000000e+00
   CSI076 0.000000e+00
                                0
                                         0
                                                   0
##
          Otu03123 Otu03124 Otu03125
                                           Otu03126
                                                         Otu03127 Otu03128
##
  CST001
                  0
                           0
                                     0 9.381303e-05 0.000000e+00
                                                                          0
  CSI012
                           0
                                                                          0
##
                  \cap
                                     0 0.000000e+00 1.724971e-05
                                     0 2.151556e-05 0.000000e+00
   CSI022
                  0
                           0
                                                                          0
                                     0 0.000000e+00 0.000000e+00
## CSI044
                  0
                           0
                                                                          0
##
   CSI055
                  0
                           0
                                       0.000000e+00 2.151417e-05
                                                                          0
                           0
                                                                          Λ
##
   CSI065
                  \cap
                                       0.000000e+00 0.000000e+00
##
   CSI076
                  0
                           0
                                     0 5.781349e-05 2.890675e-05
                                                                          0
##
               Otu03129 Otu03130 Otu03131
                                               Otu03132 Otu03133
                                                                      Otu03134
##
   CSI001 0.0001641728
                                0
                                         0 2.345326e-05
                                                                 0 0.00000000
   CSI012 0.0000000000
                                0
                                         0 1.724971e-05
                                                                 0 0.00000000
   CSI022 0.0000000000
                                         0 0.000000e+00
                                0
                                                                 0 0.000000000
   CSI044 0.0000000000
                                0
                                         0 0.00000e+00
                                                                 0 0.000000000
   CSI055 0.0000000000
                                0
                                         0 2.151417e-05
                                                                 0 0.000000000
   CSI065 0.0000000000
                                         0 0.00000e+00
                                                                 0 0.000000000
                                0
##
   CST076 0.00000000000
                                         0.0.000000e+00
                                                                 0.000000000
##
               Otu03135 Otu03136 Otu03137 Otu03138
                                                         Otu03139 Otu03140
##
   CSI001 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
   CSI012 0.0000000000
                                0
                                         0
                                                   0 0.000000e+00
                                                                          0
  CSI022 0.0000000000
                                                                          0
                                0
                                         0
                                                   0 0.00000e+00
   CSI044 0.0000000000
                                0
                                         0
                                                     0.000000e+00
                                                                          0
                                0
                                         0
                                                                          0
   CSI055 0.0001721133
                                                    8.605667e-05
   CSI065 0.0000000000
                                0
                                         0
                                                   0
                                                     0.000000e+00
                                                                          0
   CSI076 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
##
##
               Otu03141
                            Otu03142
                                          Otu03143 Otu03144
                                                                  0tu03145
   CSI001 0.0000000000 0.000000e+00 2.345326e-04
                                                           0 0.000000e+00
##
   CSI012 0.0000000000 0.000000e+00 1.379977e-04
                                                           0 0.00000e+00
   CSI022 0.0000000000 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
   CSI044 0.0000000000 0.000000e+00 0.000000e+00
                                                           0.0.000000e+00
   CSI055 0.0000000000 9.251092e-04 0.000000e+00
                                                            0 0.000000e+00
   CSI065 0.0000000000 0.000000e+00 0.000000e+00
##
                                                           0 0.00000e+00
   CSI076 0.0000000000 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
##
               Otu03146 Otu03147
                                      Otu03148 Otu03149 Otu03150 Otu03151
##
   CSI001 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
  CSI012 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI022 0.000000e+00
                                                                 0
                                                                          0
                                0 0.00000e+00
                                                       0
   CSI044 0.000000e+00
                                                       Λ
                                                                 0
                                                                          0
##
                                0 0.00000e+00
   CSI055 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                          0
   CSI065 3.782005e-05
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
##
##
   CSI076 0.000000e+00
                                0 2.890675e-05
                                                       Ω
                                                                 \cap
                                                                          0
               Otu03152 Otu03153 Otu03154 Otu03155 Otu03156 Otu03157
##
   CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI012 1.724971e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI055 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
##
                                0
                                         0
                                                   0
                                                            0
                                                                      0
##
   CSI076 0.000000e+00
##
               Otu03158 Otu03159 Otu03160
                                                Otu03161 Otu03162 Otu03163
## CSI001 0.000000e+00
                                0
                                         0.000000e+00
                                                                 0
                                                                          0
## CSI012 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                          0
```

```
## CSI022 0.000000e+00
                              0
                                       0 0.00000e+00
                                                              0
                                                                       0
  CSI044 0.000000e+00
                              0
                                                              0
                                                                       0
                                       0 0.00000e+00
   CSI055 1.075708e-04
                              0
                                       0 1.075708e-04
                                                              0
                                                                       0
                                                              0
  CSI065 0.000000e+00
                              0
                                       0 7.564010e-05
                                                                       0
##
   CSI076 0.000000e+00
                              0
                                       0 8.672024e-05
                                                              0
                                                                       0
          Otu03164 Otu03165 Otu03166
                                         Otu03167 Otu03168
##
                                                                Otu03169
  CSI001
                 0
                          0
                                   0 4.690652e-05
                                                          0 2.345326e-05
## CSI012
                 0
                          0
                                   0 0.00000e+00
                                                          0 0.00000e+00
  CSI022
                 0
                          0
                                   Λ
                                     1.290933e-04
                                                          0 0.00000e+00
                          0
##
  CSI044
                 0
                                     0.000000e+00
                                                          0 1.774413e-04
  CSI055
                 0
                          0
                                     0.000000e+00
                                                          0 0.00000e+00
                 0
                          0
##
   CSI065
                                     0.000000e+00
                                                          0 0.00000e+00
##
   CSI076
                 0
                          0
                                   0 0.000000e+00
                                                          0 0.000000e+00
                                    Otu03172 Otu03173
##
          Otu03170
                       Otu03171
                                                           Otu03174 Otu03175
  CSI001
                 0 0.000000e+00 0.000000e+00
                                                     0 0.000000e+00
                                                                           0
##
##
   CSI012
                   0.000000e+00 0.000000e+00
                                                     0 1.724971e-05
                                                                           0
##
  CSI022
                 0 0.000000e+00 0.000000e+00
                                                     0 0.00000e+00
                                                                           0
   CSI044
                 0 0.000000e+00 0.000000e+00
                                                     0 0.00000e+00
                                                                           0
  CSI055
                 0 4.302833e-05 6.669392e-04
##
                                                     0 0.000000e+00
                                                                           0
##
  CSI065
                 0 0.000000e+00 0.000000e+00
                                                     0 0.00000e+00
                                                                           0
##
   CST076
                 0 5.781349e-05 2.890675e-05
                                                     0 0.000000e+00
                                                                           0
                   Otu03177 Otu03178 Otu03179 Otu03180 Otu03181
##
          Ot:1103176
                                                                     Ot:1103182
## CSI001
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0 1.172663e-04
  CSI012
                          0
                                                      0
##
                 0
                                   0
                                             0
                                                               0 0.00000e+00
                                                      0
##
  CSI022
                 0
                          0
                                   0
                                             0
                                                               0 2.151556e-05
  CSI044
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0 0.000000e+00
  CSI055
                 0
                          0
                                   0
                                             0
                                                      0
##
                                                               0 0.000000e+00
                          0
                                             0
##
   CSI065
                 0
                                   0
                                                      0
                                                               0 0.00000e+00
                                             0
                                                               0 0.00000e+00
   CSI076
                 0
                          0
                                                      0
##
##
          Otu03183
                       Otu03184
                                    Otu03185
                                                  Otu03186
                                                               Otu03187
##
  CSI001
                 0 4.690652e-05 2.345326e-05 2.345326e-04 0.0000000000
##
   CSI012
                   1.724971e-05 0.000000e+00 5.174912e-05 0.0000000000
   CSI022
                   0.000000e+00 0.000000e+00 6.454667e-05 0.0000000000
                 CSI044
##
   CSI055
                   0.000000e+00 4.087692e-04 0.000000e+00 0.0003657408
                 ##
  CST065
##
   CSI076
                 0.000000e+00 8.672024e-05 0.000000e+00 0.000000000
##
              Otu03188 Otu03189 Otu03190
                                              Otu03191
                                                           Otu03192 Otu03193
   CSI001 0.000000e+00
                              0
                                       0 0.000000e+00 0.0000000000
                                                                           0
   CSI012 0.000000e+00
                              0
                                       0 0.000000e+00 0.0000000000
                                                                           0
   CSI022 0.000000e+00
                              0
                                       0 4.303111e-05 0.0000000000
                                                                           0
  CSI044 0.000000e+00
                              0
                                       0 0.000000e+00 0.0000000000
                                                                           0
   CSI055 2.151417e-05
                              0
                                         2.151417e-05 0.0000000000
                                                                           0
                              0
   CSI065 0.000000e+00
                                         0.000000e+00 0.0000000000
                                                                           0
                              0
   CSI076 0.000000e+00
                                       0 0.000000e+00 0.0004046945
##
              Otu03194 Otu03195 Otu03196
                                         Otu03197
                                                       Otu03198 Otu03199
   CSI001 0.000000e+00
                              0
                                       0
                                                 0 0.00000e+00
                                                                       0
                              0
                                                                       0
   CSI012 0.000000e+00
                                       0
                                                 0 0.00000e+00
  CSI022 0.000000e+00
                              0
                                       0
                                                 0
                                                  0.000000e+00
                                                                       0
   CSI044 0.000000e+00
                              0
                                       0
                                                   0.000000e+00
                                                                       0
   CSI055 4.302833e-05
                              0
                                       0
                                                                       0
                                                   0.000000e+00
   CSI065 0.000000e+00
                              0
                                       0
                                                  0.000000e+00
                                                                       0
##
  CSI076 1.242990e-03
                              0
                                       0
                                                 0.000000e+00
                                                                       0
##
          Otu03200 Otu03201
                                Otu03202 Otu03203 Otu03204 Otu03205
```

```
## CSI001
                           0 0.00000e+00
                                                  0
                                                            0
                                                                     0
                           0 0.000000e+00
  CST012
                                                  0
##
                  0
                                                            0
                                                                     0
  CSI022
                           0 0.000000e+00
##
                  0
                                                  0
                                                            0
                                                                     0
  CSI044
                  0
                             0.000000e+00
                                                  0
                                                            0
                                                                     0
##
                           Λ
##
   CST055
                  0
                             6.454250e-05
                                                  0
                                                            0
                                                                     0
                                                  0
                                                            0
                                                                     0
   CSI065
                  0
                           0 0.00000e+00
##
##
   CSI076
                  0
                           0 0.00000e+00
                                                            0
                                                                     0
##
              Otu03206
                            Ot:1103207
                                         Otu03208
                                                      Otu03209 Otu03210
   CSI001 0.000000e+00 3.283456e-04 0.000000000 0.000000e+00
                                                                        0
                                                                        0
   CSI012 4.829918e-04 1.207479e-04 0.000000000 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                        0
   CSI044 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                        0
   CSI055 0.000000e+00 0.000000e+00 0.000000000 8.605667e-05
                                                                        0
   CSI065 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                        0
   CSI076 0.000000e+00 2.890675e-05 0.000231254 0.000000e+00
                                                                        0
##
##
          Otu03211
                        Otu03212 Otu03213
                                               0tu03214
                                                             0tu03215
  CSI001
##
                  0 7.035977e-05
                                         0 0.000000e+00 2.345326e-05
   CSI012
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
##
  CSI022
                                         0 0.000000e+00 0.000000e+00
##
                  0 0.00000e+00
##
   CSI044
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
##
   CSI055
                  0 0.000000e+00
                                         0 2.366558e-04 0.000000e+00
                                         0 0.000000e+00 3.782005e-05
##
   CST065
                  0.000000e+00
##
  CSI076
                  0 0.000000e+00
                                         0 8.672024e-05 0.000000e+00
##
              Otu03216 Otu03217
                                      Otu03218
                                                   Otu03219 Otu03220
##
  CSI001 0.0004221586
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI012 0.0000000000
                               0 0.000000e+00 3.449941e-05
                                                                    0
   CSI022 0.0000000000
                               0 0.000000e+00 2.151556e-05
                                                                    0
   CSI044 0.0000000000
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 4.302833e-05 0.000000e+00
                                                                    0
   CSI055 0.0000000000
   CSI065 0.0000000000
                               0 0.000000e+00 0.000000e+00
                                                                    0
##
   CSI076 0.0000000000
                               0 0.000000e+00 0.000000e+00
                                                                    0
##
              Otu03221 Otu03222 Otu03223 Otu03224 Otu03225 Otu03226
##
   CSI001 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI012 0.000000e+00
                               0
                                                  0
                                                            0
                                                                     0
                                         0
   CSI022 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI044 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
##
                                                                     0
   CSI055 6.454250e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
  CSI065 0.000000e+00
                               0
                                         0
                                                  0
                                                            Λ
                                                                     0
##
   CSI076 0.000000e+00
                               0
                                         0
                                                  0
##
                                                                     0
##
                                      Otu03229 Otu03230
              Otu03227 Otu03228
                                                             Otii03231 Otii03232
  CSI001 2.345326e-05
                               0 1.641728e-04
                                                      0 0.00000e+00
                                                                              0
  CSI012 0.000000e+00
                               0 1.724971e-05
                                                      0 0.00000e+00
                                                                              0
   CSI022 4.303111e-05
                               0 2.151556e-05
                                                      0 1.075778e-04
                                                                              0
   CSI044 0.000000e+00
                                                      0 0.000000e+00
                                                                              0
                               0 0.00000e+00
   CSI055 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
##
   CSI076 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
##
              Otu03233 Otu03234
                                      0tu03235
                                                   Otu03236 Otu03237
  CSI001 2.345326e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI012 1.724971e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 0.000000e+00 0.000000e+00
                                                                    0
##
   CSI022 0.000000e+00
  CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
## CSI055 0.000000e+00
                               0 1.290850e-04 4.302833e-05
                                                                    0
## CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
```

```
## CSI076 8.672024e-05
                               0 3.468810e-04 0.000000e+00
##
              Otu03238 Otu03239
                                      Ot:1103240
                                                   Ot:1103241
                                                                 Ot:1103242
## CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI012 1.724971e-05
                               0 1.724971e-05 5.174912e-05 3.449941e-05
  CSI022 0.000000e+00
                               0 2.151556e-05 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 6.454250e-05 0.000000e+00
   CSI055 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI065 0.000000e+00
  CSI076 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                                 Otu03245 Otu03246 Otu03247 Otu03248 Otu03249
##
          Otu03243 Otu03244
## CSI001
                  0
                           0 0.000000000
                                                  0
                                                            0
                                                                     0
## CSI012
                           0 0.0000000000
                                                  0
                                                            0
                                                                     0
                                                                               0
                  0
## CSI022
                  0
                           0.000000000
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI044
                  0
                           0 0.000000000
                                                  0
                                                            0
                                                                     0
                                                                               0
  CSI055
                  0
                           0 0.0001505992
                                                  0
                                                            0
                                                                               0
##
                                                                     0
##
  CSI065
                  0
                           0 0.000000000
                                                  0
                                                            0
                                                                     0
                                                                               0
                  0
                                                  0
                                                            0
##
  CSI076
                           0 0.000000000
                                                                     0
                                                                               0
                                                   Otu03253 Otu03254
##
              Otu03250
                            Otu03251 Otu03252
## CSI001 4.690652e-05 7.035977e-05
                                             0.000000e+00
                                                                    0
  CSI012 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
  CSI022 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
   CSI044 0.000000e+00 0.000000e+00
                                                                    0
                                             0.0.000000e+00
  CSI055 0.000000e+00 0.000000e+00
                                             0.000000e+00
                                                                    0
   CSI065 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
   CSI076 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                    0
              0tu03255
                            Otu03256 Otu03257
                                                   Otu03258 Otu03259
                                                                      Otu03260
##
  CSI001 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                    0
                                                                              0
   CSI012 0.000000e+00 6.899883e-05
                                             0 3.449941e-05
                                                                    0
                                                                              0
   CSI022 0.000000e+00 1.290933e-04
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI044 0.000000e+00 0.000000e+00
                                             0 5.914710e-05
                                                                    0
                                                                              0
   CSI055 6.454250e-05 0.000000e+00
                                             0 0.00000e+00
                                                                    0
                                                                              0
   CSI065 3.782005e-05 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI076 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                    0
          Otu03261
##
                        Otu03262
                                     Otu03263 Otu03264 Otu03265 Otu03266
   CSI001
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                          0
##
  CSI012
                  0 1.724971e-05 1.724971e-05
                                                      0
                                                                0
                                                                          0
##
  CSI022
                  0 1.075778e-04 0.000000e+00
                                                       0
                                                                0
                                                                          0
## CSI044
                  0 0.000000e+00 0.000000e+00
                                                      Λ
                                                                0
                                                                          0
                  0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
   CST055
                                                      0
                  0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
##
  CST065
                                                      Ω
   CST076
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
          Otu03267 Otu03268 Otu03269 Otu03270 Otu03271
##
                                                              Otu03272 Otu03273
##
  CSI001
                  0
                           0
                                    0
                                              0
                                                        0 0.00000e+00
                                                                               0
                                              0
                                                                               0
##
  CSI012
                  0
                           0
                                     0
                                                        0 0.00000e+00
## CSI022
                  0
                           0
                                    0
                                              0
                                                        0 0.00000e+00
                                                                               0
## CSI044
                  0
                           0
                                    0
                                              0
                                                                               0
                                                        0 0.00000e+00
##
  CSI055
                  0
                           0
                                    0
                                              0
                                                        0 2.151417e-05
                                                                               0
                                              0
##
   CSI065
                  0
                           0
                                    0
                                                        0 0.00000e+00
                                                                               0
##
   CST076
                  0
                           0
                                    0
                                              0
                                                        0 0.000000e+00
                                                                               0
##
          Otu03274
                        Otu03275 Otu03276 Otu03277
                                                        Otu03278
                                                                      Otu03279
## CSI001
                                         0
                                                  0 0.000000e+00 0.000000e+00
                  0 0.00000e+00
## CSI012
                  0 0.00000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
                                                  0 0.000000e+00 0.000000e+00
## CSI022
                  0.000000e+00
                                         0
## CSI044
                  0 0.00000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
```

```
## CSI055
                  0 0.00000e+00
                                         0
                                                   0 0.000000e+00 1.075708e-04
  CST065
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
##
##
   CSI076
                  0
                   0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
##
          Otu03280
                        Otu03281 Otu03282
                                                Otu03283 Otu03284 Otu03285
##
  CST001
                  0 0.00000e+00
                                         0 0.000000000
                                                                 0
                                                                           0
  CSI012
                  0 0.000000e+00
                                                                 0
                                                                           0
##
                                         0 0.000000000
                                                                 0
   CSI022
                  0 0.000000e+00
                                         0 0.000000000
                                                                           0
## CSI044
                  0 0.00000e+00
                                         0 0.000000000
                                                                 0
                                                                           0
##
   CSI055
                  0 2.151417e-05
                                         0 0.000000000
                                                                 0
                                                                           0
                                         0 0.000000000
                                                                 Λ
##
   CSI065
                  0 0.000000e+00
                                                                           0
##
   CSI076
                  0 0.000000e+00
                                         0 0.0002601607
                                                                 0
                                                                           0
##
               Otu03286 Otu03287 Otu03288 Otu03289 Otu03290
                                                                   Otu03291
##
   CSI001 0.0000000000
                                0
                                         0
                                                   0
                                                             0 2.345326e-05
                                0
   CSI012 0.0000000000
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI022 0.0001075778
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
   CSI044 0.0000000000
                                0
                                         0
                                                   0
                                                               0.000000e+00
                                0
                                         0
                                                   0
   CSI055 0.0000000000
                                                              0.000000e+00
   CSI065 0.0000000000
                                0
                                         0
                                                   0
                                                               0.000000e+00
                                0
##
   CST076 0.00000000000
                                         0
                                                   0
                                                             0.000000e+00
##
          Otu03292 Otu03293 Otu03294
                                           Otu03295
                                                         Otu03296 Otu03297
                                     0 1.172663e-04 0.000000e+00
##
  CSI001
                  \cap
                           0
                                                                           0
## CSI012
                  0
                           0
                                     0 1.724971e-05 0.000000e+00
                                                                           0
## CSI022
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
##
  CSI044
                  0
                                                                           0
                           0
                                                                           0
##
  CST055
                  0
                                     0 6.454250e-05 0.000000e+00
   CSI065
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
   CSI076
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
##
          Otu03298
                       Otu03299
                                     Otu03300 Otu03301 Otu03302 Otu03303
                  0 0.00000000 0.000000e+00
                                                                0
                                                                         0
##
   CSI001
                                                      0
  CSI012
                  0 0.000000000 0.000000e+00
                                                      0
                                                                0
                                                                         0
##
   CSI022
                  0 0.00000000 0.000000e+00
                                                      0
                                                                0
                                                                         0
##
   CSI044
                  0 0.00000000 0.000000e+00
                                                      0
                                                                0
                                                                         0
   CSI055
                  0 0.001118737 0.000000e+00
                                                      0
                                                                0
                                                                         0
                  0 0.00000000 0.000000e+00
                                                                         0
##
   CSI065
                                                      0
                                                                0
                  0 0.000000000 2.890675e-05
                                                      0
                                                                0
##
   CSI076
                                                Otu03307 Otu03308 Otu03309
               Otu03304 Otu03305 Otu03306
##
   CSI001 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
  CSI012 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
   CSI022 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
                                                                           0
                                0
                                                                 0
                                                                           0
  CSI044 0.000000e+00
                                         0 0.00000e+00
   CSI055 8.605667e-05
                                0
                                                                 0
                                                                           0
                                         0 2.151417e-05
   CSI065 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
##
   CSI076 1.156270e-04
                                0
                                         0 0.00000e+00
                                                                 \cap
                                                                           0
               Otu03310 Otu03311 Otu03312
##
                                                              Otu03314 Otu03315
                                                Otu03313
   CSI001 2.345326e-05
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI012 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI022 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
                                0
   CSI044 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI055 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
   CSI065 0.000000e+00
                                0
                                         0 7.564010e-05 0.000000e+00
                                                                               0
   CSI076 0.000000e+00
                                0
                                         0 2.890675e-05 0.000000e+00
                                                                               0
##
##
          Otu03316 Otu03317 Otu03318 Otu03319 Otu03320 Otu03321
                                                                         Otu03322
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 2.345326e-05
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 1.034982e-04
```

```
## CSI022
                  0
                            0
                                     0
                                                                  0 0.00000e+00
                            0
##
  CSI044
                  0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
##
  CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
  CSI065
                  0
                            0
                                     Λ
                                               0
                                                         0
                                                                  0 0.000000e+00
##
##
   CST076
                            0
                                               0
                                                         0
                                                                  0 0.000000e+00
                                      Otu03325 Otu03326
##
               Otu03323 Otu03324
                                                              0tu03327
  CSI001 0.000000e+00
                                0 0.000000000
                                                       0 9.381303e-05
  CSI012 1.897468e-04
                                0 0.000000000
                                                       0 6.899883e-05
   CSI022 0.000000e+00
                                0 0.000000000
                                                       0 6.454667e-05
   CSI044 0.000000e+00
                                0 0.000000000
                                                       0 0.000000e+00
   CSI055 0.000000e+00
                                0 0.000000000
                                                       0 0.00000e+00
##
   CSI065 0.000000e+00
                                0 0.000000000
                                                       0 0.00000e+00
##
   CSI076 0.000000e+00
                                0 0.0002890675
                                                       0 0.000000e+00
##
               Otu03328 Otu03329 Otu03330 Otu03331 Otu03332 Otu03333 Otu03334
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
  CSI001 0.000000e+00
                                                                                0
   CSI012 1.724971e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                         0
                                                                                0
   CSI022 0.000000e+00
                                0
                                                   0
                                                             0
                                                                      0
   CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI055 3.227125e-04
                                         0
                                                   0
                                                             0
                                                                                0
                                0
                                                                      0
   CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
   CSI076 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                O
               Otu03335
                            Otu03336
                                          Otu03337 Otu03338 Otu03339
##
  CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI012 0.000000e+00 5.174912e-05 6.899883e-05
                                                            0
                                                                     0
   CSI022 0.000000e+00 3.872800e-04 0.000000e+00
                                                            0
                                                                     0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                            Λ
                                                                     0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                            0
                                                                     0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
##
##
               Otu03340 Otu03341 Otu03342
                                                Otu03343
                                                              Otu03344 Otu03345
##
   CSI001 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI012 1.724971e-05
                                0
                                         0 0.000000e+00 3.449941e-05
                                                                               0
   CSI022 1.506089e-04
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
                                0
   CSI044 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI055 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI065 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
##
                                                                               0
##
   CSI076 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
          Otu03346 Otu03347
                                  Otu03348 Otu03349 Otu03350 Otu03351
## CSI001
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                             0
                                                                      0
##
  CST012
                  0
                            0 0.000000e+00
                                                   0
                                                             0
  CSI022
                  0
                             0.000000e+00
                                                   0
                                                                      0
  CSI044
                  0
                                                   0
                                                             0
                                                                      0
##
                            0
                              0.000000e+00
##
   CSI055
                  0
                            Λ
                              0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                   0
                                                             0
   CSI065
                  Λ
                            0 0.00000e+00
                                                                      0
##
                                                   0
##
   CSI076
                            0 0.00000e+00
                                                             0
               Otu03352 Otu03353 Otu03354 Otu03355
##
                                                     Otu03356
                                                                   Otu03357
##
   CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000000
   CSI012 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000000
   CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                               0.000000000
   CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                               0.000000000
   CSI055 3.011983e-04
                                0
                                         0
                                                   0
                                                               0.000000000
                                                             0
   CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.0003025604
##
  CSI076 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.0003179742
##
          Otu03358 Otu03359
                                  Otu03360 Otu03361
                                                         Otu03362
                                                                        Otu03363
```

```
## CSI001
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI012
                             0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
                  0
  CSI022
                              0.000000e+00
                  0
                                                   0 6.454667e-05 0.000000e+00
  CSI044
                  0
                              0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
                            0
##
   CSI055
                  0
                              0.000000e+00
                                                     0.000000e+00 2.151417e-05
                                                     0.000000e+00 0.000000e+00
  CSI065
                  0
                             0.000000e+00
##
                                                     0.000000e+00 5.781349e-05
##
   CSI076
                  0
                             2.890675e-05
##
          Otu03364 Otu03365
                                  Otu03366 Otu03367
                                                     Otu03368 Otu03369 Otu03370
## CSI001
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                O
                                                                                0
##
  CSI012
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                      0
  CSI022
                  0
                            0 2.151556e-05
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
   CSI044
                  0
                             0.000000e+00
##
   CSI055
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                                                0
##
   CSI065
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
   CSI076
                  0
                                                             0
                                                                      0
                                                                                0
##
                            0 0.00000e+00
                                                   0
##
               Otu03371
                            Otu03372 Otu03373
                                                    Otu03374 Otu03375 Otu03376
   CSI001 0.0000000000 0.000000e+00
##
                                              0 4.690652e-05
                                                                     0
                                                                               0
   CSI012 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                     0
                                                                               0
   CSI022 0.0000000000 0.000000e+00
                                              0 0.000000e+00
                                                                     0
                                                                               0
   CSI044 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                     0
                                                                               0
##
   CSI055 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                     0
                                                                               0
   CSI065 0.0000000000 0.000000e+00
                                                                     0
                                              0 0.00000e+00
                                                                               0
   CSI076 0.0000000000 0.000000e+00
                                                                     0
##
                                              0 0.00000e+00
                                                                               0
##
               Otu03377
                            Otu03378 Otu03379
                                                Otu03380 Otu03381 Otu03382
##
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                           0
                                                                 0
   CSI055 0.000000e+00 2.151417e-05
                                              0
                                                       0
                                                                           0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
##
   CSI076 3.468810e-04 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
##
               Otu03383
                            Otu03384 Otu03385 Otu03386 Otu03387
                                                                   Ot:1103388
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI012 0.000000e+00 1.724971e-05
                                                                 0
                                                                           0
                                              0
                                                       0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI044 0.000000e+00 0.000000e+00
                                                                 0
                                              0
                                                       0
                                                                           0
   CSI055 0.000000e+00 2.151417e-05
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI065 7.564010e-05 0.000000e+00
                                              0
                                                       Λ
                                                                 0
                                                                           0
##
   CSI076 0.000000e+00 0.000000e+00
                                                                 0
##
                                                       0
                                                                           0
##
          Otu03389
                        Otu03390 Otu03391
                                                Otu03392 Otu03393 Otu03394
##
  CSI001
                  0.0000000000
                                         0 0.00000e+00
                                                                 0
                                                                           0
## CSI012
                  0 0.000000000
                                         0 1.724971e-05
                                                                 0
                                                                           0
##
   CSI022
                  0 0.000000000
                                         0 0.00000e+00
                                                                 0
                                                                           0
                                                                 0
                    0.000000000
                                           0.000000e+00
                                                                           0
##
   CSI044
  CSI055
                    0.000000000
                                           6.454250e-05
                                                                 0
                                                                           0
## CSI065
                                                                 0
                                                                           0
                  0
                    0.000000000
                                           0.000000e+00
##
   CSI076
                  0
                    0.000000000
                                         0
                                           0.000000e+00
                                                                 0
                                                                           0
##
          Otu03395
                        Otu03396 Otu03397
                                                Otu03398
                                                              Otu03399 Otu03400
## CSI001
                  0 0.000000e+00
                                         0 0.000000e+00 0.0000000000
                                                                               0
##
   CSI012
                  0 0.000000e+00
                                         0 0.000000e+00 0.0000000000
                                                                               0
                                         0 0.00000e+00 0.000000000
##
   CSI022
                   0.000000e+00
                                                                               0
## CSI044
                  0 0.000000e+00
                                         0 0.000000e+00 0.0000000000
                                                                               0
## CSI055
                  0 6.454250e-05
                                         0 0.000000e+00 0.0001936275
                                                                               0
## CSI065
                  0 3.782005e-05
                                         0 0.000000e+00 0.0000000000
                                                                               0
```

```
## CSI076
                  0 2.890675e-05
                                         0 0.000000e+00 0.0000000000
                                                                               0
##
          Otu03401
                                      Ot:1103403
                                                    Otu03404 Otu03405 Otu03406
                        Otu03402
## CSI001
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
## CSI012
                  0 8.624853e-05 0.000000e+00 1.207479e-04
                                                                     0
                                                                               0
  CSI022
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
##
  CSI044
                                                                               0
                  0 4.302833e-05 0.000000e+00 0.000000e+00
  CSI055
                                                                     0
                                                                               0
## CSI065
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
##
   CSI076
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
                    Otu03408 Otu03409 Otu03410 Otu03411 Otu03412
##
          Otu03407
                                                                         Otu03413
## CSI001
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 2.345326e-05
## CSI012
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI022
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                                                                  0 0.00000e+00
## CSI044
                  0
                            0
                                     0
                                               0
                                                        0
## CSI055
                  0
                            0
                                               0
                                                        0
                                     0
                                                                  0.0.000000e+00
## CSI065
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
                            0
                                     0
                                               0
                                                        0
##
   CSI076
                  0
                                                                  0 0.00000e+00
          Otu03414 Otu03415 Otu03416 Otu03417 Otu03418 Otu03419
                                                                        Otu03420
##
## CST001
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 4.690652e-05
## CSI012
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 8.624853e-05
##
  CSI022
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI044
                  0
                            0
                                               0
                                                        0
                                                                  0 0.000000e+00
                                     0
## CSI055
                                                        0
                  0
                            0
                                     0
                                               0
                                                                  0.000000e+00
                                               0
                                                        0
  CSI065
                  0
                            0
                                     0
                                                                  0 0.00000e+00
                                               0
##
  CST076
                  0
                            0
                                     0
                                                        0
                                                                  0.000000e+00
          0tu03421
                      0tu03422
                                    Otu03423 Otu03424 Otu03425
                                                                     Otu03426
## CSI001
                  0 0.00000000 0.000000e+00
                                                     0
                                                               0 0.00000e+00
   CSI012
                  0 0.0000000 0.000000e+00
                                                     0
                                                               0 1.724971e-05
                                                               0 0.000000e+00
  CSI022
                  0 0.00000000 0.000000e+00
                                                     0
   CSI044
                  0 0.00000000 0.000000e+00
                                                     0
                                                               0 0.000000e+00
##
   CSI055
                  0 0.00051634 0.000000e+00
                                                     0
                                                               0 0.00000e+00
##
   CSI065
                  0 0.0000000 0.000000e+00
                                                     0
                                                               0 0.000000e+00
   CSI076
                  0 0.00000000 0.000000e+00
                                                     0
                                                               0 0.00000e+00
          Otu03427 Otu03428 Otu03429 Otu03430 Otu03431
##
                                                               Otu03432
   CSI001
                  0
                            0
                                     0
                                               0
                                                        0 0.00000e+00
##
  CSI012
                  0
                            0
                                     0
                                               0
##
                                                        0 1.724971e-05
## CSI022
                  0
                            0
                                     0
                                               0
                                                        0 0.00000e+00
## CSI044
                  0
                            0
                                               0
                                                        0 1.182942e-04
                                     0
                  0
                            0
                                     0
                                               0
   CSI055
                                                        0.000000e+00
                            0
                                     0
                                               0
##
  CSI065
                  \cap
                                                        0.000000e+00
   CSI076
                                               0
                                                        0 2.890675e-05
                                          Otu03435 Otu03436 Otu03437
##
               0t_{11}03433
                            0t_{11}03434
   CSI001 6.332380e-04 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI055 0.000000e+00 4.948258e-04 0.000000e+00
                                                            0
                                                                     0
                                                                     0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
   CSI076 0.000000e+00 3.179742e-04 5.781349e-05
                                                            0
                                                                     0
##
              Otu03438 Otu03439 Otu03440
                                                Otu03441 Otu03442
                                                                        Otu03443
                                                                 0 0.000000e+00
  CSI001 2.345326e-05
                                0
                                         0 0.00000e+00
                                0
## CSI012 6.899883e-05
                                         0 1.724971e-05
                                                                 0 3.449941e-05
## CSI022 2.151556e-05
                                0
                                         0 0.000000e+00
                                                                 0 0.00000e+00
## CSI044 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0 1.971570e-05
```

```
## CSI055 0.000000e+00
                                0
                                          0 8.605667e-05
                                                                 0 1.721133e-04
   CSI065 0.000000e+00
                                                                 0 0.000000e+00
                                0
                                          0 0.000000e+00
   CSI076 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0 0.000000e+00
##
                                      Otu03446 Otu03447 Otu03448 Otu03449
               Otu03444 Otu03445
                                0 0.000000e+00
   CSI001 0.0000000000
                                                       0
                                                                 0
                                                                           0
   CSI012 0.0000000000
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI022 0.0000000000
                                0 8.606222e-05
                                                       0
                                                                           0
  CSI044 0.0000000000
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI055 0.0002366558
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
                                                       Λ
                                                                 0
                                                                           Λ
   CSI065 0.0000000000
                                0 0.00000e+00
   CSI076 0.0000000000
                                0 2.890675e-05
                                                       0
                                                                 0
                                                                           0
##
          Otu03450 Otu03451 Otu03452 Otu03453
                                                     Otu03454 Otu03455 Otu03456
##
  CSI001
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
                                                                                0
                                               0 0.00000e+00
                                                                                0
##
  CSI012
                  0
                            0
                                     0
                                                                       0
  CSI022
                  0
                                                                                0
##
                            0
                                     0
                                               0 6.454667e-05
                                                                       0
##
   CSI044
                  0
                            0
                                     0
                                                 0.000000e+00
                                                                       0
                                                                                0
                  0
                            0
                                                                                0
##
   CSI055
                                     0
                                               0 0.00000e+00
                                                                       0
   CSI065
                  0
                            0
                                                 0.000000e+00
                                                                                0
##
                                                                                0
##
   CST076
                  0
                            0
                                     0
                                               0.000000e+00
                                                                       0
##
          Otu03457 Otu03458
                                  Otu03459 Otu03460
                                                          Otu03461 Otu03462
##
  CSI001
                  0
                            0 2.345326e-05
                                                   0 0.00000e+00
                                                                           0
## CSI012
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
## CSI022
                                                                           0
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
##
  CSI044
                  0
                              0.000000e+00
                                                   0 0.00000e+00
                                                                           0
                             0.000000e+00
                                                                           0
##
  CST055
                  0
                                                   0 2.151417e-05
   CSI065
                  0
                             0.000000e+00
                                                   0 0.00000e+00
                                                                           0
   CSI076
                  0
                                                     0.000000e+00
                                                                           0
##
                            0
                              5.781349e-05
                                                   0
##
          Otu03463 Otu03464
                                  Otu03465 Otu03466
                                                          Otu03467 Otu03468
                                                   0 0.000000e+00
##
  CSI001
                  0
                            0 0.00000e+00
                                                                           0
  CSI012
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
                                                                           0
##
  CSI022
                  0
                            0 0.000000e+00
                                                     2.151556e-05
                                                                           0
##
   CSI044
                  0
                            0
                             0.000000e+00
                                                     0.000000e+00
                                                                           0
##
   CSI055
                  0
                             0.000000e+00
                                                   0 0.00000e+00
                                                                           0
                                                                           0
##
   CSI065
                  0
                            0 0.00000e+00
                                                   0
                                                     0.000000e+00
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
                                                                           0
##
   CSI076
          Otu03469
                        Otu03470 Otu03471 Otu03472 Otu03473 Otu03474
##
## CSI001
                  0 7.035977e-05
                                          0
                                                   0
                                                             0
                                                                       0
  CSI012
                  0 8.624853e-05
                                          0
                                                   0
                                                             0
                                                                       0
##
  CSI022
                  0 4.303111e-05
                                          0
                                                   0
                                                             0
                                                                       0
                                          0
                                                   0
                                                             0
                                                                       0
##
  CSI044
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
   CSI055
                  0 0.000000e+00
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
   CST065
##
   CSI076
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
               Otu03475 Otu03476 Otu03477 Otu03478
                                                          Otu03479 Otu03480
   CSI001 4.690652e-05
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI012 0.000000e+00
                                0
                                          0
                                                                           0
                                                     1.724971e-05
   CSI022 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
                                0
                                          0
                                                                           0
   CSI044 0.000000e+00
                                                     0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                     4.302833e-04
                                                                           0
##
   CSI065 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
                                          0
                                                   0 0.000000e+00
##
   CSI076 8.672024e-05
                                0
                                                                           0
##
               Otu03481
                             Otu03482 Otu03483
                                                    Otu03484
                                                                  Otu03485
## CSI001 0.000000e+00 0.000000e+00
                                              0 2.345326e-05 0.000000e+00
## CSI012 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 6.899883e-05
```

```
## CSI022 0.000000e+00 0.000000e+00
                                             0 6.454667e-05 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 3.782005e-05
                                             0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
              Otu03486 Otu03487 Otu03488
                                               Otu03489
##
                                                             Ot:1103490
   CSI001 2.345326e-05
                               0
                                         0 0.000000e+00 2.345326e-05
  CSI012 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00
                               0
                                           0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                               0
                                           0.000000e+00 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
##
   CSI076 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
##
              Otu03491
                            Otu03492 Otu03493 Otu03494
                                                             Otu03495
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
##
   CSI012 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                             0
   CSI022 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
   CSI055 1.505992e-04 6.454250e-05
                                             0
                                                       0 2.151417e-05
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
##
   CSI076 5.781349e-05 0.000000e+00
                                             0
                                                       0 0.000000e+00
              Otu03496 Otu03497
                                      Otu03498 Otu03499 Otu03500 Otu03501
##
  CSI001 0.0000000000
                                                                 0
                                                                          0
##
                               0 0.00000e+00
                                                       0
   CSI012 0.0000000000
                                                                 0
                               0 0.00000e+00
                                                       0
                                                                          0
                                                                          0
   CSI022 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                 0
   CSI044 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI055 0.0002151417
                                                       0
                                                                 0
                                                                          0
                               0 1.936275e-04
                                                                 0
   CSI065 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                          0
                               0 2.023472e-04
                                                       0
                                                                 Λ
                                                                          0
##
   CSI076 0.0001445337
##
              Otu03502 Otu03503 Otu03504 Otu03505
                                                    Otu03506
                                                                   Otu03507
##
   CSI001 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI012 1.724971e-05
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
   CSI022 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
                               0
                                         0
                                                   0
   CSI044 0.000000e+00
                                                            0 0.00000e+00
   CSI055 6.023967e-04
                               0
                                         0
                                                   0
                                                              0.000000e+00
   CSI065 0.000000e+00
                               0
                                         0
                                                   0
##
                                                            0 0.00000e+00
##
   CSI076 2.890675e-05
                               0
                                         0
                                                   0
                                                            0 5.781349e-05
##
          Otu03508
                       Otu03509 Otu03510 Otu03511 Otu03512
                                                                  Ot:1103513
## CSI001
                  0 0.00000e+00
                                        0
                                                  0
                                                           0 2.345326e-05
  CSI012
                                                  0
##
                  0 0.00000e+00
                                        0
                                                           0.0.000000e+00
  CSI022
                  0 0.00000e+00
                                        0
                                                  0
                                                           0 4.303111e-05
  CSI044
                                        0
                                                  0
##
                  0 1.97157e-05
                                                           0 0.000000e+00
##
   CSI055
                  Λ
                   0.00000e+00
                                        0
                                                  0
                                                           0 2.151417e-05
                                                  0
                   0.00000e+00
                                        0
                                                           0 0.000000e+00
##
   CSI065
                                                  0
##
   CSI076
                  0
                    0.00000e+00
                                        0
                                                           0 0.000000e+00
                        Otu03515 Otu03516
                                           Otu03517
                                                     Otu03518
                                                              Otu03519 Otu03520
##
          Otu03514
##
  CSI001
                  0 0.000000000
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                                            0
                                                                                0
##
   CSI012
                  0 0.000000000
                                         0
                                                   0
                                                                      0
   CSI022
                  0 0.000000000
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI044
                   0.000000000
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
   CSI055
                  0 0.0009251092
##
  CSI065
                  0.0000000000
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI076
##
                  0.0000000000
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
              Otu03521 Otu03522
                                      Otu03523 Otu03524 Otu03525
                                                                       0tu03526
```

```
## CSI001 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI012 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI022 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI044 0.000000e+00
                               0 0.00000e+00
                                                               0 0.000000e+00
                                                      0
                               0 0.00000e+00
   CSI055 1.290850e-04
                                                      0
                                                               0.000000e+00
  CSI065 0.000000e+00
                               0 0.00000e+00
                                                      Ω
                                                               0 0.00000e+00
##
   CSI076 0.000000e+00
                               0 2.890675e-05
                                                               0 2.890675e-05
##
              Otu03527 Otu03528 Otu03529 Otu03530
                                                        0tu03531
                                                                     Ot:1103532
  CSI001 4.690652e-05
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
                               0
   CSI012 0.000000e+00
                                        0
                                                  0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                               0
                                        0
                                                   0.000000e+00 0.000000e+00
                               0
                                        0
   CSI044 0.000000e+00
                                                   1.971570e-05 0.000000e+00
   CSI055 0.000000e+00
                               0
                                        0
                                                   0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                               0
                                        0
                                                   0.000000e+00 0.000000e+00
   CSI076 1.156270e-04
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
##
              Otu03533 Otu03534 Otu03535
                                             Otu03536 Otu03537
                                                                    Otu03538
  CSI001 0.0000000000
##
                               0
                                        0 0.000727051
                                                              0 0.00000e+00
   CSI012 0.0002069965
                               0
                                        0 0.00000000
                                                              0 0.00000e+00
  CSI022 0.0001721244
                               0
                                        0 0.00000000
                                                              0.000000e+00
  CSI044 0.0000000000
                               0
                                          0.000000000
                                                                0.00000e+00
##
  CSI055 0.0000000000
                               0
                                          0.000000000
                                                              0 0.000000e+00
   CSI065 0.0000000000
                               0
                                          0.000000000
                                                              0 0.00000e+00
                               0
##
  CSI076 0.0000000000
                                        0
                                          0.000000000
                                                              0 0.00000e+00
              Otu03539 Otu03540 Otu03541
                                              0tu03542
                                                            Otu03543 Otu03544
##
  CSI001 0.000000e+00
                               0
                                        0 7.035977e-05 4.690652e-05
                                                                             0
  CSI012 0.000000e+00
                               0
                                        0 1.724971e-05 3.449941e-05
                                                                             0
  CSI022 0.000000e+00
                               0
                                        0 0.000000e+00 6.454667e-05
                                                                             0
   CSI044 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
   CSI055 4.302833e-05
   CSI065 0.000000e+00
                               0
                                        0 3.782005e-05 0.000000e+00
                                                                             0
##
   CSI076 2.890675e-05
                               0
                                        0 0.000000e+00 2.890675e-05
                                                                             0
##
              Otu03545 Otu03546
                                     Otu03547 Otu03548
                                                            Otu03549 Otu03550
##
   CSI001 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI012 0.000000e+00
                                                                             0
                               0 0.00000e+00
                                                      0 0.00000e+00
   CSI022 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI044 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI055 0.000000e+00
                               0 0.00000e+00
                                                      0 2.151417e-05
                                                                             0
  CSI065 3.782005e-05
                               0 0.000000e+00
                                                      0 0.00000e+00
##
                                                                             0
   CSI076 0.000000e+00
##
                               0 2.023472e-04
                                                      0 0.00000e+00
                                                                             0
                       Otu03552 Otu03553 Otu03554
##
          Otu03551
                                                        Otu03555 Otu03556
  CSI001
                 0 0.000000000
                                        0
                                                  0 0.000000000
                                                                        0
  CSI012
                 0 0.0006727386
                                        0
                                                  0 0.0002759953
                                                                        0
##
  CSI022
                   0.000000000
                                        0
                                                   0.000000000
                                                                        0
                                        0
                                                                        0
##
  CSI044
                   0.000000000
                                                   0.000000000
  CSI055
                   0.000000000
                                        0
                                                   0.000000000
                                                                        0
  CSI065
                   0.000000000
                                        0
                                                  0 0.000000000
                                                                        0
##
                 0
##
  CSI076
                 0
                   0.000000000
                                        0
                                                  0 0.000000000
                                                                        0
##
          Otu03557
                        Otu03558
                                     Otu03559 Otu03560
                                                            Otu03561 Otu03562
## CSI001
                 0 0.000000e+00 0.000000e+00
                                                      0 0.000000000
                                                                             0
  CSI012
                   1.724971e-05 1.724971e-05
                                                      0 0.0001207479
                                                                             0
##
                   1.936400e-04 0.000000e+00
##
  CSI022
                                                      0 0.000000000
                                                                             0
## CSI044
                 0 0.000000e+00 1.971570e-04
                                                      0 0.000000000
                                                                             0
                 0 0.000000e+00 0.000000e+00
## CSI055
                                                      0 0.000000000
                                                                             0
## CSI065
                 0 0.000000e+00 0.000000e+00
                                                      0 0.000000000
                                                                             0
```

```
0 0.000000e+00 0.000000e+00
                                                       0 0.000000000
                                                                              0
##
          Otu03563 Otu03564 Otu03565 Otu03566 Otu03567 Otu03568
                                                                        Ot:1103569
## CSI001
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.000000e+00
                  0
                           0
                                              0
## CSI044
                                     0
                                                        0
                                                                 0 0.000000e+00
                           0
                                              0
                                                        0
## CSI055
                  0
                                     0
                                                                 0 6.454250e-05
## CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0.000000e+00
## CSI076
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 5.781349e-05
##
              Otu03570 Otu03571
                                      Otu03572
                                                    Otu03573 Otu03574 Otu03575
## CSI001 4.690652e-05
                               0 0.000000e+00 0.0000000000
                                                                     0
                                                                              0
                               0 0.000000e+00 0.0000000000
## CSI012 0.000000e+00
                                                                     0
                                                                              0
  CSI022 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                     0
                                                                              0
## CSI044 0.000000e+00
                               0 1.182942e-04 0.0000000000
                                                                     0
                                                                              0
  CSI055 0.000000e+00
                               0 0.000000e+00 0.0002366558
                                                                     0
                                                                              0
   CSI065 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                     0
                               0 2.890675e-05 0.0000000000
   CSI076 8.672024e-05
                                                                     0
                                                                              0
##
          Otu03576 Otu03577 Otu03578 Otu03579
                                                     Otu03580
                                                                  0tu03581
## CST001
                 0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI012
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI044
                  0
                           0
                                              0 0.000000e+00 0.000000e+00
                                     0
## CSI055
                                              0 0.000000e+00 0.000000e+00
                           0
                  0
                                     0
                           0
## CSI065
                  0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI076
                  0
                           0
                                     0
                                              0 2.890675e-05 0.000000e+00
              Otu03582
                            Otu03583 Otu03584 Otu03585
                                                             Otu03586 Otu03587
## CSI001 2.345326e-05 0.000000e+00
                                             0
                                                      0 2.345326e-05
                                                                              0
  CSI012 6.899883e-05 1.724971e-05
                                             0
                                                       0 1.724971e-05
                                                                              0
## CSI022 4.303111e-05 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                              0
   CSI055 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
              Otu03588 Otu03589 Otu03590
##
                                               Otu03591 Otu03592 Otu03593
## CSI001 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
## CSI012 0.000000e+00
                               0
                                                                0
                                                                          0
                                         0 0.000000e+00
## CSI022 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
## CSI044 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                Ω
                                                                          0
  CSI055 0.000000e+00
                               0
                                                                0
                                         0 8.820809e-04
                                                                          0
  CSI065 0.000000e+00
                               0
                                                                Ω
                                         0 0.00000e+00
                                                                          0
                               0
   CSI076 0.000000e+00
                                         0 0.00000e+00
          Otu03594 Otu03595 Otu03596 Otu03597
##
                                                     0t.1103598
                                                                  0t_{11}03599
                                              0 0.000000e+00 0.000000000
## CSI001
                 0
                           0
                                     0
                           0
## CSI012
                  0
                                     0
                                              0 0.000000e+00 0.0000000000
## CSI022
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0000000000
                                              0 0.000000e+00 0.0000000000
## CSI044
                  0
                           0
                                     0
## CSI055
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0000000000
                           0
##
  CSI065
                  0
                                     0
                                              0 0.000000e+00 0.0000000000
   CST076
                  0
                           0
                                     0
                                              0 2.890675e-05 0.0000000000
##
          Otu03600 Otu03601
                             Otu03602 Otu03603 Otu03604
                                                              Otu03605 Otu03606
## CSI001
                  0
                           0
                                                        0 0.000000e+00
                                                                               0
                                     0
                                              0
                           0
## CSI012
                  0
                                     0
                                              0
                                                        0 1.724971e-05
                                                                               0
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
## CSI044
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
```

```
## CSI055
                           0
                                                        0 0.00000e+00
                                                                               0
  CST065
                                              0
                                                        0 0.000000e+00
                                                                               0
                  0
                           0
                                     0
##
   CSI076
                  0
                           0
                                     0
                                              0
                                                        0 5.781349e-05
                                                                               0
##
          Otu03607
                        Otu03608 Otu03609 Otu03610
                                                         Otu03611
                                                                       Ot:1103612
##
   CST001
                  0 4.690652e-05
                                         0
                                                   0 0.000000e+00 2.345326e-05
                                         0
                                                   0 0.000000e+00 6.899883e-05
##
  CSI012
                  0 0.00000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
  CSI022
                  0 2.151556e-05
                                                   0 0.000000e+00 0.000000e+00
## CSI044
                  0 0.00000e+00
                                         0
##
   CSI055
                   0.000000e+00
                                         0
                                                     2.151417e-05 2.151417e-05
                                         0
##
   CSI065
                   0.000000e+00
                                                     0.000000e+00 0.000000e+00
   CSI076
                   0.000000e+00
                                         0
                                                     0.000000e+00 0.000000e+00
##
          Otu03613
                   Otu03614
                                 Otu03615 Otu03616
                                                    Otu03617
                                                                  Otu03618
##
   CSI001
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
                                                   0
##
   CSI012
                  0
                           0 0.00000e+00
                                                            0 5.174912e-05
  CSI022
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
##
   CSI044
                  0
                           0 0.00000e+00
                                                   0
                                                              0.000000e+00
                                                   0
##
   CSI055
                  0
                           0 0.00000e+00
                                                            0 0.00000e+00
   CSI065
                           0 0.00000e+00
                                                              0.000000e+00
##
##
   CST076
                  0
                           0.000000e+00
                                                   0
                                                            0.000000e+00
##
          Otu03619
                        Otu03620
                                      Otu03621 Otu03622 Otu03623 Otu03624
##
  CSI001
                  0 0.000000000 0.000000e+00
                                                       0
                                                                 0
                                                                          0
  CSI012
                  0 0.0000000000 0.000000e+00
                                                       0
                                                                 0
                                                                          0
## CSI022
                  0 0.000000000 0.000000e+00
                                                                 0
                                                       0
                                                                          0
                  0 0.000000000 0.000000e+00
                                                                 0
   CSI044
                                                       0
                                                                          0
                                                                 0
                                                                          0
##
   CST055
                  0 0.0000645425 4.302833e-04
                                                       0
   CSI065
                   0.000000000 0.000000e+00
                                                       Λ
                                                                 0
                                                                          0
   CSI076
                   0.000000000 5.781349e-05
                                                       0
                                                                 0
                                                                          0
##
##
          Otu03625
                        Otu03626
                                      Otu03627
                                                    Otu03628 Otu03629
                                                                       Otu03630
                  0 0.000000e+00 0.000000000 0.000000e+00
##
   CSI001
                                                                     0
                                                                              0
   CSI012
                  0 0.000000e+00 0.0000000000 1.724971e-05
                                                                     0
                                                                              0
##
   CSI022
                  0 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
                                                                              0
##
   CSI044
                  0 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
                                                                              0
##
   CSI055
                  0 2.796842e-04 0.0000000000 0.000000e+00
                                                                     0
                                                                              0
                  0 0.000000e+00 0.000000000 0.000000e+00
                                                                     0
##
   CSI065
                                                                              0
                   2.890675e-05 0.0006648552 0.000000e+00
                                                                     0
                                                                              0
##
   CSI076
          Otu03631
                        Otu03632 Otu03633 Otu03634 Otu03635 Otu03636
##
## CSI001
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
  CSI012
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
##
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
   CSI022
                                                                      0
                                         0
                                                   0
                                                            Λ
                                                                      0
##
  CSI044
                  0.000000e+00
                                         0
                                                   0
                                                            0
   CSI055
                  0 0.000000e+00
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
##
   CST065
##
   CST076
                  0 3.179742e-04
                                         0
                                                            0
                                                                      0
                            Otu03638 Otu03639
##
                                                    Otu03640 Otu03641 Otu03642
              Otu03637
   CSI001 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                     0
                                                                              0
   CSI012 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
                                             0 0.000000000
   CSI022 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                     0
                                                                              0
   CSI044 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                     0
                                                                              0
   CSI055 0.000000e+00 0.000000e+00
                                             0.000000000
                                                                     0
                                                                              0
   CSI065 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                     0
                                                                              0
   CSI076 5.781349e-05 2.890675e-05
                                                                              0
##
                                             0 0.0001734405
                                                                     0
##
          Otu03643
                        Otu03644 Otu03645
                                               Otu03646 Otu03647
                                                                       Otu03648
## CSI001
                  0.000000e+00
                                         0 2.345326e-05
                                                                 0.000000e+00
## CSI012
                  0 6.899883e-05
                                         0 3.449941e-05
                                                                 0 6.899883e-05
```

```
## CSI022
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                0 0.00000e+00
##
  CST044
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                0 0.00000e+00
##
   CSI055
                  0 2.151417e-05
                                         0 0.00000e+00
                                                                0 0.00000e+00
                                         0 0.00000e+00
                                                                0 0.000000e+00
##
   CST065
                  0.000000e+00
##
   CST076
                  0 5.781349e-05
                                         0 0.000000e+00
                                                                0 0.000000e+00
                                          Otu03651 Otu03652
##
              Otu03649
                            Otu03650
                                                               Ot:1103653
   CSI001 2.345326e-05 0.000000e+00 2.345326e-05
                                                           0.00000000
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0.00000000
   CSI022 4.303111e-05 0.000000e+00 2.151556e-05
                                                           0 0.00000000
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0.00000000
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00025817
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00000000
##
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0.00000000
##
              Otu03654
                            Otu03655 Otu03656
                                                    Otu03657
                                                                 Otu03658
   CSI001 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
   CSI012 0.000000e+00 8.624853e-05
                                             0 8.624853e-05 3.449941e-05
   CSI022 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI055 1.721133e-04 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
   CSI076 1.445337e-04 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
          Otu03659 Otu03660
                                 Otu03661 Otu03662
##
                                                         Ot1103663 Ot1103664
## CSI001
                  0
                                                                          0
                           0 0.00000e+00
                                                  0 4.690652e-05
##
   CSI012
                  0
                           0 3.449941e-05
                                                  0 1.552474e-04
                                                                          0
                           0 0.000000e+00
                                                  0 2.151556e-05
                                                                          0
##
  CSI022
                  0
   CSI044
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
   CSI055
                  0
                                                                          0
##
                           0
                             0.000000e+00
                                                  0 0.000000e+00
                                                                          0
##
   CSI065
                  0
                           0
                             0.000000e+00
                                                  0 0.00000e+00
                           0 0.000000e+00
   CSI076
                  0
                                                  0 0.00000e+00
                                                                          0
##
##
          Otu03665 Otu03666
                             Otu03667 Otu03668 Otu03669
                                                              Otu03670 Otu03671
##
   CSI001
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
   CSI012
                  0
                           0
                                     0
                                              0
                                                        0 1.724971e-05
                                                                               0
##
   CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                  0
                           0
   CSI044
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
   CSI055
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                           0
                                              0
                                                                               0
##
   CST065
                  0
                                     0
                                                        0.000000e+00
##
   CSI076
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
              Otu03672
                            Otu03673 Otu03674 Otu03675 Otu03676
                                                                       Ot:1103677
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0 0.000000e+00
   CSI012 1.724971e-05 0.000000e+00
                                             0
                                                       0
                                                                0 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0.000000e+00
   CSI055 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0 2.151417e-05
                                             0
   CSI065 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
                                             0
##
   CSI076 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
          Otu03678
                        Otu03679 Otu03680 Otu03681 Otu03682 Otu03683 Otu03684
##
##
   CSI001
                  0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
                                                                               0
##
   CSI012
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
   CSI022
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
   CSI044
                   0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
##
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
##
   CSI055
                   2.151417e-05
##
   CSI065
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
##
  CSI076
                  0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
##
          Otu03685 Otu03686 Otu03687
                                           Otu03688 Otu03689 Otu03690 Otu03691
```

```
## CSI001
                  0
                            0
                                     0 0.000000000
                                                             0
                                                                       0
                                                                                 0
  CST012
                  0
                            0
                                      0.000000000
                                                             0
                                                                       0
                                                                                 0
##
  CSI022
                                      0.0000000000
                  0
                            0
                                                             0
                                                                       0
                                                                                 0
                            0
                                                             0
                                                                                 0
  CSI044
                  0
                                       0.0000000000
                                                                       0
##
##
  CSI055
                  0
                            0
                                       0.000000000
                                                             0
                                                                       0
                                                                                 0
                  0
                            0
                                                             0
                                                                       0
                                                                                 0
##
  CSI065
                                      0 0.0005673008
                            0
                                                             0
##
   CSI076
                  0
                                      0 0.000000000
                                                                       0
                                                                                 0
##
          Otu03692
                         Otu03693
                                      Otu03694 Otu03695 Otu03696 Otu03697
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
   CSI012
  CSI022
                  0 0.000000e+00 4.303111e-05
                                                        0
                                                                  0
                                                                           0
                                                                  0
  CSI044
                  0 0.000000e+00 1.577256e-04
                                                        0
                                                                           0
##
##
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                  0 0.000000e+00 3.782005e-05
                                                                  0
##
   CSI065
                                                        0
                                                                           0
   CSI076
                  0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
##
                                                        0
##
           Otu03698 Otu03699 Otu03700
                                            Otu03701
                                                          Otu03702
                                                                        Otu03703
## CSI001
                            0
                                      0 2.345326e-05 0.000000e+00 0.000000e+00
                  0
##
  CSI012
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI022
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
##
  CSI044
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI055
                  0
                            0
                                      0 0.000000e+00 2.151417e-05 0.000000e+00
   CSI065
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
                            0
##
  CSI076
                  0
               Otu03704 Otu03705 Otu03706 Otu03707 Otu03708
##
                                                                    Ot:1103709
## CSI001 2.345326e-05
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
   CSI012 3.449941e-05
                                0
                                          0
                                                    0
                                                             0 0.000000e+00
   CSI022 2.151556e-05
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
                                0
                                          0
                                                    0
   CSI044 0.000000e+00
                                                             0 0.00000e+00
                                0
                                          0
                                                    0
   CSI055 0.000000e+00
                                                             0 2.366558e-04
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000e+00
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 1.734405e-04
##
               Otu03710
                             Otu03711 Otu03712
                                                     Otu03713
                                                                   0 \pm 1103714
   CSI001 9.381303e-05 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI044 3.943140e-05 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00 2.151417e-05
                                              0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
##
##
               Otu03715 Otu03716 Otu03717 Otu03718 Otu03719 Otu03720 Otu03721
  CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
   CSI044 0.000000e+00
                                                                       0
                                          0
                                                    0
                                                             0
   CSI055 0.000000e+00
                                0
                                                                       0
                                                                                 0
   CSI065 3.782005e-04
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
           Otu03722 Otu03723 Otu03724 Otu03725 Otu03726
##
                                                               Otu03727 Otu03728
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0 2.345326e-05
                                                                                 0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0 1.034982e-04
                                                                                 0
  CSI022
                  0
                            0
                                     0
                                               0
                                                                                 0
##
                                                         0 0.00000e+00
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
## CSI055
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
## CSI065
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
```

```
## CSI076
                                                        0 2.312540e-04
                                                                               0
                                                        Otu03732 Otu03733
##
                            Ot:1103730
                                          Ot:1103731
              Ot:1103729
  CSI001 0.000000e+00 0.000000e+00 0.0000000000 0.000000e+00
   CSI012 0.000000e+00 0.000000e+00 0.0004312427 0.000000e+00
                                                                         0
   CSIO22 0.000000e+00 2.151556e-05 0.000000000 0.000000e+00
                                                                         0
   CSI044 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                         0
   CSI055 2.151417e-05 0.000000e+00 0.000000000 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                         0
   CSI076 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
##
          Otu03734 Otu03735
                                 Otu03736
                                               Otu03737
                                                             Otu03738 Otu03739
## CSI001
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI012
                           0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                                                                              0
##
  CSI022
                  0
                           0 2.151556e-05 0.000000e+00 0.000000e+00
                                                                              0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI044
                  0
                                                                              0
  CSI055
                  0
                           0 0.000000e+00 2.151417e-05 0.000000e+00
##
                                                                              0
  CSI065
                  0
                           0 0.000000e+00 9.455013e-04 0.000000e+00
##
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CST076
                                                                              0
##
              Otu03740 Otu03741 Otu03742
                                               Otu03743 Otu03744
                                                                       Otu03745
## CSI001 2.345326e-05
                               0
                                         0 4.690652e-05
                                                                0 2.345326e-05
## CSI012 5.174912e-05
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
##
  CSI022 0.000000e+00
                               0
                                         0 4.303111e-05
                                                                0 0.00000e+00
   CSI044 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0.000000e+00
## CSI055 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI065 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.00000e+00
   CSI076 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0.000000e+00
##
          Otu03746 Otu03747 Otu03748 Otu03749
                                                   Otu03750 Otu03751 Otu03752
## CSI001
                           0
                                     0
                  0
                                              0 0.00000e+00
                                                                     0
                                                                              0
##
  CSI012
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                              0
## CSI022
                           0
                                              0 0.00000e+00
                                                                     0
                  0
                                     0
                                                                              0
  CSI044
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                              0
##
  CSI055
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                              0
##
   CSI065
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                              0
##
   CSI076
                  0
                           0
                                              0 0.00000e+00
                                                                     0
                                                                              0
          Otu03753
##
                        Otu03754
                                      Otu03755 Otu03756
                                                             Otu03757 Otu03758
   CSI001
                  0 0.000000e+00 7.035977e-05
                                                       0 2.345326e-05
##
                                                                              0
   CSI012
                  0 0.000000e+00 1.379977e-04
##
                                                       0 3.449941e-05
                                                                              0
   CSI022
                  0 0.000000e+00 1.290933e-04
                                                       0 4.303111e-05
                                                                              0
  CSI044
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
##
                                                                              0
                  0 1.290850e-04 0.000000e+00
   CST055
                                                       0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
##
   CST065
                                                       0 0.000000e+00
                                                                              0
   CST076
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
          Otu03759 Otu03760 Otu03761 Otu03762 Otu03763 Otu03764 Otu03765
##
##
   CSI001
                  \cap
                           0
                                     0
                                              0
                                                        \cap
                                                                 0
                                                                           0
                                              0
                                                        0
  CSI012
                  0
                           0
                                     0
                                                                 0
                                                                           0
##
  CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
                  0
                           0
                                                        0
                                                                 0
##
  CSI044
                                     0
                                              0
                                                                           0
##
   CSI055
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
                           0
                                     0
                                              0
                                                        0
                                                                 0
##
   CSI065
                  0
                                                                           0
##
   CST076
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
##
              Otu03766 Otu03767
                                      Otu03768
                                                    Otu03769 Otu03770 Otu03771
  CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
## CSI012 3.449941e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
                               0 0.000000e+00 0.000000e+00
## CSI022 0.000000e+00
                                                                     0
                                                                              0
## CSI044 0.000000e+00
                               0 0.000000e+00 2.957355e-04
                                                                     0
                                                                              0
```

```
## CSI055 0.000000e+00
                                0 0.000000e+00 2.151417e-05
                                                                               0
   CSI065 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI076 0.000000e+00
                                0 5.781349e-05 0.000000e+00
                                                                     0
                                                                               0
                                                               Otu03777 Otu03778
##
          Otu03772 Otu03773 Otu03774 Otu03775 Otu03776
##
  CST001
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
  CSI012
                  0
                            0
                                     0
                                               0
                                                                                0
##
                                                         0 0.00000e+00
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0.0.000000e+00
                                                                                0
##
   CSI055
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                O
                            0
                                     0
                                               Λ
                                                                                0
##
   CSI065
                  \cap
                                                         0 0.000000e+00
##
   CSI076
                  0
                            0
                                     0
                                                         0 0.00000e+00
                                                                                0
               Otu03779 Otu03780 Otu03781
##
                                                Otu03782 Otu03783 Otu03784
##
   CSI001 0.000000e+00
                                0
                                         0 2.345326e-05
                                                                 0
                                                                           0
                                0
                                                                 0
   CSI012 0.000000e+00
                                         0 0.00000e+00
                                                                           0
   CSI022 0.000000e+00
                                                                 0
                                                                           0
                                0
                                         0 0.00000e+00
   CSI044 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
                                                                 0
   CSI055 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                           0
   CSI065 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
                                0
                                                                 0
                                                                           0
##
   CST076 0.000000e+00
                                         0 0.00000e+00
##
          Otu03785 Otu03786 Otu03787 Otu03788 Otu03789 Otu03790
                                                                    Otu03791
## CSI001
                  Ω
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                                               0
##
  CST055
                  0
                            0
                                     0
                                                         0
                                                                  0
                                                                            0
   CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
   CSI076
               Otu03792 Otu03793 Otu03794
                                                             Otu03796 Otu03797
##
                                               Otu03795
                                         0 0.000000000 4.690652e-05
                                                                              0
##
   CSI001 4.690652e-05
                                0
   CSI012 0.000000e+00
                                0
                                         0 0.000000000 0.000000e+00
                                                                              0
   CSI022 0.000000e+00
                                0
                                         0 0.000000000 0.000000e+00
                                                                              0
   CSI044 1.971570e-05
                                0
                                         0 0.00000000 0.000000e+00
                                                                              0
   CSI055 0.000000e+00
                                0
                                         0 0.000387255 0.000000e+00
                                                                              0
   CSI065 7.564010e-05
                                         0 0.000000000 0.000000e+00
                                                                              0
                                0
   CSI076 0.000000e+00
                                0
                                         0 0.00000000 0.000000e+00
                                                                              0
##
          Otu03798
                        Otu03799 Otu03800 Otu03801 Otu03802
##
                                                                   Ot:1103803
## CSI001
                  0 4.690652e-05
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI012
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 1.034982e-04
  CSI022
                                         0
                                                   0
                  0 2.151556e-05
                                                             0 2.151556e-05
                                         0
                                                   0
##
  CSI044
                  0.000000e+00
                                                             0.000000e+00
                                         0
                                                   0
   CSI055
                  0 0.00000e+00
                                                             0 0.00000e+00
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.00000e+00
##
   CST065
##
   CSI076
                  0 0.00000e+00
                                         \cap
                                                   0
                                                             0 0.00000e+00
                            Otu03805 Otu03806
##
                                                   Otu03807
               Otu03804
                                                                 Otu03808
   CSI001 0.000000e+00 0.000000e+00
                                              0 0.00000e+00 0.000000e+00
   CSI012 0.000000e+00 6.899883e-05
                                              0 0.00000e+00 3.449941e-05
   CSI022 0.000000e+00 3.227333e-04
                                              0 0.00000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00
                                              0 0.00000e+00 0.000000e+00
   CSI055 2.151417e-05 0.000000e+00
                                              0 6.45425e-05 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.00000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.00000e+00 0.000000e+00
##
##
               Otu03809 Otu03810 Otu03811 Otu03812 Otu03813 Otu03814 Otu03815
## CSI001 0.0000000000
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI012 0.0000000000
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
```

```
## CSI022 0.0000000000
                           0
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
  CSI044 0.0000000000
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
                           0
  CSI055 0.0000000000
                           0
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
                                                                     0
  CSI065 0.0000000000
                                   0
                                            0
                                                    Λ
                                                            0
                           0
##
  CSI076 0.0000000000
                           0
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
                                                 Otu03820 Otu03821
##
         Ot:1103816
                     Otu03817 Otu03818 Otu03819
  CSI001
               0 0.00000e+00
                                   0
                                            0 0.00000e+00
                                                                0
## CSI012
               0 1.724971e-05
                                   0
                                            0 5.174912e-05
                                                                0
##
  CSI022
               0 2.151556e-05
                                   0
                                            Λ
                                             6.454667e-05
                                                                0
                                   0
                                                                0
##
  CSI044
               0 0.000000e+00
                                            0 0.00000e+00
  CSI055
                 0.000000e+00
                                   0
                                             0.000000e+00
                                                                0
                                   0
                                                                0
##
  CSI065
               0
                 0.000000e+00
                                            0 0.00000e+00
##
  CSI076
                 0.000000e+00
                                   0
                                            0 0.000000e+00
                                                                0
               0
                                            0tu03825
##
         Otu03822
                    Otu03823
                                Otu03824
                                                        Otu03826
##
  CSI001
               0 0.00000e+00 0.000000000 0.000000000 0.000000e+00
##
  CSI012
               0 0.00000e+00 0.000000000 0.000000000 0.000000e+00
               0 0.00000e+00 0.000000000 0.000000000 0.000000e+00
##
  CSI022
  CSI044
               0 0.00000e+00 0.000000000 0.000000000 0.000000e+00
  CSI055
               0 0.00000e+00 0.0002151417 0.000000000 0.000000e+00
##
##
  CSI065
                 7.56401e-05 0.0000000000 0.000000000 7.564010e-05
               0 0.00000e+00 0.0001445337 0.000000000 0.000000e+00
##
  CST076
                 Otu03828 Otu03829 Otu03830 Otu03831 Otu03832
                                                             Otu03833
##
         Ot:1103827
## CSI001
               0
                        0
                                0
                                        0
                                                0
                                                         0.000000000
                        0
                                        0
                                                0
##
  CSI012
               0
                                0
                                                         0 0.00000000
                                                0
##
  CSI022
               0
                        0
                                0
                                        0
                                                         0.000000000
  CSI044
               0
                        0
                                0
                                        0
                                                0
                                                         0.000000000
  CSI055
               0
                        0
                                0
                                        0
                                                0
##
                                                         0 0.000000000
                        0
                                        0
                                                0
##
  CSI065
               0
                                0
                                                         0 0.000000000
                                        0
                                                0
  CSI076
               0
                        0
                                                         0 0.000115627
##
                                0
##
         Otu03834
                     Otu03835
                                 Otu03836 Otu03837
                                                     Otu03838
##
  CSI001
               0
                 0.000000e+00 0.000000e+00
                                               0 0.00000e+00
##
  CSI012
               0 0.000000e+00 0.000000e+00
                                               0 0.000000e+00
##
  CSI022
                 0.000000e+00 0.000000e+00
                                               0 0.00000e+00
  CSI044
               0 0.000000e+00 0.000000e+00
                                               0 1.971570e-05
##
  CSI055
                 0.000000e+00 2.151417e-05
                                               0 0.00000e+00
##
               0 0.000000e+00 0.000000e+00
                                               0 0.00000e+00
##
  CST065
##
  CSI076
               0 0.000000e+00 0.000000e+00
                                               0 0.000000e+00
##
            0 \pm 1103839
                        Otu03840
                                                0 \pm 1103842
                                    Ot:1103841
                                                            Ot:1103843
  CSI022 0.000000e+00 2.151556e-05 0.000000e+00 4.303111e-05 0.0000000000
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.0001936275
  ##
            Otu03844 Otu03845
                                 Otu03846 Otu03847
                                                     Otu03848 Otu03849
  CSI001 0.000000e+00
                           0 0.00000e+00
                                               0 0.00000e+00
                                                                    0
  CSI012 1.724971e-05
                           0 0.00000e+00
                                               0 0.00000e+00
                                                                    0
  CSI022 4.303111e-05
                           0 0.000000e+00
                                               0 0.000000e+00
                                                                    0
  CSI044 0.000000e+00
                           0 0.00000e+00
                                               0 0.00000e+00
                                                                    0
  CSI055 0.000000e+00
                                                                    0
                           0 0.00000e+00
                                               0 1.721133e-04
##
  CSI065 0.000000e+00
                           0 0.00000e+00
                                               0 0.00000e+00
                                                                    0
##
  CSI076 0.000000e+00
                           0 5.781349e-05
                                               0 0.000000e+00
                                                                    0
##
         Otu03850 Otu03851
                             Otu03852 Otu03853
                                                 Otu03854
                                                             Otu03855
```

```
## CSI001
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI012
                  0
                            0 0.000000e+00
                                                   0 1.724971e-05 1.724971e-05
##
  CSI022
##
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI044
                  0
                              0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
                            0
##
   CSI055
                  0
                             8.605667e-05
                                                     0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
  CSI065
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
##
   CSI076
                            0 2.890675e-05
##
          Otu03856
                        Otu03857 Otu03858
                                                Otu03859
                                                              Ot.1103860
## CSI001
                  0 0.000000000
                                          0 0.000000e+00 0.000000e+00
##
   CSI012
                  0.0000000000
                                          0 0.000000e+00 0.000000e+00
   CSI022
                  0.0000000000
                                          0 0.000000e+00 0.000000e+00
   CSI044
                                          0 0.000000e+00 0.000000e+00
##
                    0.0001577256
##
   CSI055
                  0.0000000000
                                          0 0.000000e+00 2.151417e-05
   CSI065
                                          0 0.000000e+00 0.000000e+00
##
                  0 0.000000000
   CSI076
                  0.0000000000
                                          0 5.781349e-05 0.000000e+00
##
##
               Otu03861 Otu03862 Otu03863 Otu03864 Otu03865 Otu03866 Otu03867
                                                   0
##
   CSI001 2.345326e-05
                                0
                                          0
                                                             0
                                                                       0
                                                                                 0
   CSI012 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                                0
                                0
                                                                       0
   CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 O
   CSI065 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
  CSI076 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
##
          Otu03868 Otu03869 Otu03870 Otu03871 Otu03872 Otu03873
##
                                                                         0tu03874
                                                                  0 1.407195e-04
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
  CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
##
                            0
##
   CSI044
                  0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
                  0
                            0
                                     0
                                               0
                                                         0
##
   CSI055
                                                                  0 6.454250e-05
##
  CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
##
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
##
               Otu03875 Otu03876 Otu03877 Otu03878
                                                          Otu03879 Otu03880
   CSI001 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI012 0.000000e+00
                                          0
                                                                           0
                                0
                                                   0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
   CSI044 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
   CSI055 0.000000e+00
                                0
                                          0
                                                   0 8.605667e-05
                                                                           0
##
  CSI065 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI076 0.000000e+00
                                0
                                          0
                                                   0 6.648552e-04
##
                                                                           0
##
          Otu03881 Otu03882 Otu03883 Otu03884
                                                     Otu03885 Otu03886 Otu03887
                                               0 4.690652e-05
## CSI001
                  0
                            0
                                     0
                                                                       0
                                                                                 0
## CSI012
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                  0
##
  CSI022
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                            0
                                                                                 0
##
                  0
                                     0
                                               0 0.000000e+00
                                                                       Λ
  CSI044
                            0
  CSI055
                  0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI065
                  0
                            0
                                                                       0
                                                                                 0
                                     0
                                               0 0.00000e+00
##
  CSI076
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
          Otu03888
                        Otu03889 Otu03890
                                                Otu03891 Otu03892 Otu03893
## CSI001
                  0 0.000000e+00
                                          0 4.925184e-04
                                                                 0
                                                                           0
##
   CSI012
                    0.000000e+00
                                          0 3.449941e-05
                                                                 0
                                                                           0
                                                                 0
                                                                           0
##
   CSI022
                    0.000000e+00
                                          0 0.00000e+00
## CSI044
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                 0
                                                                           0
## CSI055
                  0 6.454250e-05
                                          0 0.00000e+00
                                                                 0
                                                                           0
## CSI065
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                 0
                                                                           0
```

```
## CSI076
                  0 5.781349e-05
                                         0 0.00000e+00
                                                                0
                                                                          0
##
          Otu03894 Otu03895 Otu03896 Otu03897 Otu03898
                                                              Ot:1103899
## CSI001
                  0
                           0
                                    0
                                              0
                                                        0 0.00000e+00
## CSI012
                  0
                           0
                                    0
                                              0
                                                        0 6.899883e-05
##
  CSI022
                  0
                           0
                                    0
                                              0
                                                        0 2.151556e-05
                  0
                           0
  CSI044
                                    0
                                              0
                                                        0 0.00000e+00
##
                           0
  CSI055
                  0
                                     0
                                              0
                                                        0 2.151417e-05
## CSI065
                  0
                           0
                                    0
                                              0
                                                        0 0.00000e+00
##
  CSI076
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
              Otu03900 Otu03901
                                                   Otu03903 Otu03904 Otu03905
##
                                      Otu03902
  CSI001 0.000000e+00
                               0 1.407195e-04 0.000000e+00
                                                                    0
                               0 6.899883e-05 0.000000e+00
   CSI012 0.000000e+00
                                                                    0
                                                                              0
   CSI022 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
   CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
   CSI055 0.000000e+00
                               0 6.454250e-05 2.151417e-05
                                                                    0
                                                                              0
   CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                               0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00
                                                                    0
                                                                              0
##
          Otu03906
                        Otu03907
                                      Otu03908
                                                   Otu03909 Otu03910
                  0 0.000000e+00 0.000000e+00 2.345326e-05
##
  CST001
                                                                    0
##
  CSI012
                  0 1.724971e-05 0.000000e+00 6.899883e-05
                                                                    0
##
   CSI022
                  0 0.000000e+00 0.000000e+00 4.303111e-05
                                                                    0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
   CST044
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI055
                                                                    0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI065
                                                                    0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CST076
                                                                    0
##
              Otu03911
                            Otu03912 Otu03913
                                                   Otu03914
                                                                 Otu03915
   CSI001 0.0000000000 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
   CSI012 0.0000000000 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI022 0.0000000000 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI044 0.0000000000 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI055 0.0000000000 0.000000e+00
                                             0 0.000000e+00 6.454250e-05
   CSI065 0.0003025604 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI076 0.0000000000 2.890675e-05
                                             0 0.000000e+00 0.000000e+00
              Otu03916 Otu03917 Otu03918 Otu03919
##
                                                        Otu03920 Otu03921
   CSI001 4.690652e-05
                                         0
                                                  0 0.000000000
                                                                          0
                               0
                               0
                                         0
                                                  0 0.000000000
                                                                         0
   CSI012 1.724971e-05
   CSI022 0.000000e+00
                               0
                                         0
                                                  0 0.000000000
                                                                          0
  CSI044 0.000000e+00
                               0
                                         0
                                                  0 0.000000000
                                                                          0
   CSI055 0.000000e+00
                               0
                                         0
                                                                          0
                                                    0.0000000000
   CSI065 0.000000e+00
                               0
                                         0
                                                                          0
                                                  0.0000000000
                               0
                                         0
   CSI076 0.000000e+00
                                                  0.0000000000
          Otu03922 Otu03923 Otu03924 Otu03925 Otu03926
##
                                                              0t_{11}03927
##
  CSI001
                  0
                           0
                                    0
                                              0
                                                        0 4.690652e-05
                           0
                                              0
  CSI012
                  0
                                     0
                                                        0 0.00000e+00
##
  CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
## CSI044
                  0
                           0
                                    0
                                              0
                                                        0 0.00000e+00
##
   CSI055
                  0
                           0
                                    0
                                              0
                                                        0 0.00000e+00
                           0
                                    0
                                              0
##
   CSI065
                  0
                                                        0 0.00000e+00
##
   CST076
                  0
                           0
                                    0
                                              0
                                                        0 0.000000e+00
##
              Otu03928 Otu03929 Otu03930
                                               Otu03931 Otu03932
                                                                      Otu03933
  CSI001 0.000000e+00
                                                                0 0.0000000000
                               0
                                         0 0.00000e+00
## CSI012 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
## CSI022 0.000000e+00
                               0
                                         0.000000e+00
                                                                0 0.000000000
## CSI044 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000000
```

```
## CSI055 1.075708e-04
                               0
                                         0 2.151417e-05
                                                                0 0.000000000
   CSI065 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000000
                                         0 2.890675e-05
                                                                0 0.000000000
   CSI076 0.000000e+00
                               0
##
          Otu03934
                        Otu03935 Otu03936
                                               Otu03937
                                                             Otu03938 Otu03939
                  0 4.690652e-05
##
   CST001
                                         0 2.345326e-05 0.000000e+00
                                                                              0
  CSI012
                                         0 0.000000e+00 1.724971e-05
##
                  0 1.034982e-04
                                         0 0.000000e+00 0.000000e+00
   CSI022
                  0 1.936400e-04
                                         0 0.000000e+00 0.000000e+00
## CSI044
                  0 0.00000e+00
##
   CSI055
                  0 0.000000e+00
                                         0 2.151417e-05 0.000000e+00
##
   CSI065
                   0.000000e+00
                                         0 0.000000e+00 0.000000e+00
   CSI076
                  0
                   0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                   Otu03941 Otu03942 Otu03943 Otu03944 Otu03945 Otu03946
##
          Otu03940
##
   CSI001
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
                           0
                                              0
                                                                 0
##
   CSI012
                  0
                                     0
                                                        0
                                                                           0
  CSI022
                  0
                           0
                                                                 0
                                                                           0
##
                                     0
                                              0
                                                        0
   CSI044
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
##
                  0
                           0
                                              0
                                                        0
                                                                 0
                                                                           0
   CSI055
                                     0
##
   CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
                                              0
                                                                           0
##
   CST076
                  0
                           0
                                     0
                                                        0
                                                                 0
##
              0tu03947
                            Otu03948
                                          Otu03949
                                                        Otu03950 Otu03951
##
   CSI001 2.345326e-05 2.345326e-05 0.000000e+00 0.000000e+00
                                                                         0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSIO22 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI044 0.000000e+00 0.000000e+00 3.943140e-05 0.000000e+00
   CSI055 4.302833e-05 0.000000e+00 2.581700e-04 0.000000e+00
                                                                         0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI076 0.000000e+00 0.000000e+00 8.672024e-05 0.000000e+00
                                                                         0
##
##
          Otu03952 Otu03953
                                 Otu03954 Otu03955
                                                         Otu03956 Otu03957
   CSI001
                  0
                                                                          0
##
                           0 4.690652e-05
                                                   0 0.00000e+00
  CSI012
                  0
                           0 0.00000e+00
                                                   0 0.00000e+00
                                                                          0
##
  CSI022
                  0
                           0 0.00000e+00
                                                   0 2.151556e-05
                                                                          0
##
   CSI044
                  0
                           0 0.000000e+00
                                                   0.0.000000e+00
                                                                          0
##
   CSI055
                  0
                           0 0.00000e+00
                                                   0 0.00000e+00
                                                                          0
##
   CSI065
                  0
                           0 0.00000e+00
                                                   0 0.00000e+00
                                                                          0
                  0
                           0 0.00000e+00
                                                   0 8.672024e-05
                                                                          0
##
   CSI076
          Otu03958
##
                        Otu03959 Otu03960
                                               Ot:1103961
                                                            Ot:1103962
## CSI001
                  0 0.000000000
                                         0 1.172663e-04 0.000000000
  CSI012
                  0 0.000000000
                                         0 3.449941e-05 0.000000000
##
                                         0 0.000000e+00 0.000000000
   CST022
                  0 0.000000000
                                         0 0.000000e+00 0.000000000
##
  CST044
                  0 0.000000000
   CSI055
                  0 0.0001075708
                                         0 2.151417e-05 0.000000000
                                         0 0.000000e+00 0.001096782
##
   CSI065
                  0.000000000
##
   CST076
                  0 0.000000000
                                         0 0.000000e+00 0.000000000
              Otu03963 Otu03964 Otu03965 Otu03966
##
                                                         Otu03967 Otu03968
   CSI001 2.345326e-05
                               0
                                         0
                                                   0 1.876261e-04
                                                                          0
   CSI012 1.724971e-05
                               0
                                         0
                                                                          0
                                                   0 3.449941e-05
   CSI022 2.151556e-05
                               0
                                         0
                                                   0 2.151556e-05
                                                                          0
                               0
                                         0
                                                                          0
   CSI044 1.971570e-05
                                                   0 0.00000e+00
   CSI055 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
   CSI065 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
##
                               0
                                                                          0
##
   CSI076 2.890675e-05
                                         0
                                                     0.000000e+00
                                                   0
##
          Otu03969 Otu03970 Otu03971
                                           0tu03972
                                                         Otu03973 Otu03974
## CSI001
                  0
                           0
                                     0 9.381303e-05 2.345326e-05
                                                                          0
## CSI012
                  0
                           0
                                     0 3.449941e-05 1.207479e-04
                                                                          0
```

0

0

0

O

0

```
## CSI022
                  0
                            0
                                      0 6.454667e-05 8.606222e-05
                                                                            0
  CSI044
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
   CSI055
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
  CSI065
                  O
                            0
                                        0.000000e+00 0.000000e+00
                                                                            0
##
##
   CST076
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
                                       Otu03977 Otu03978 Otu03979 Otu03980
##
               Otu03975 Otu03976
   CSI001 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
  CSI012 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
   CSI022 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
                                                                  0
                                                                            0
   CSI044 0.000000e+00
                                0 0.000000000
                                                        0
   CSI055 1.505992e-04
                                0 0.0000645425
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI065 0.000000e+00
                                                        0
                                                                            0
                                0 0.000000000
##
   CSI076 2.890675e-05
                                0 0.0002023472
                                                        0
                                                                  0
                                                                            0
                                                                    Otu03986
##
          Otu03981 Otu03982
                                   Otu03983
                                                 Otu03984 Otu03985
##
  CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CSI012
                  0
                              1.724971e-05 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
                                                                            0
##
   CSI022
                  0
                              5.378889e-04 0.000000e+00
   CSI044
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
  CSI055
                  0
                              0.000000e+00 2.151417e-05
                                                                  0
                                                                            0
##
##
   CSI065
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CST076
                  0
                            0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
           Otu03987
                    Otu03988
                              Otu03989 Otu03990 Otu03991
                                                                Otu03992 Otu03993
##
## CSI001
                            0
                                                0
                  0
                                      0
                                                          0 0.00000e+00
                                                                                  0
   CSI012
                            0
##
                  0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
                                                                                  0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
   CSI044
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
   CSI055
                  0
                            0
                                      0
                                                0
                                                                                  0
##
                                                          0 0.00000e+00
                            0
                                                0
                                                                                  0
##
   CSI065
                  0
                                      0
                                                          0 0.00000e+00
                            0
                                                                                  0
   CSI076
                  0
                                      0
                                                0
                                                          0 0.00000e+00
##
##
          Otu03994
                    Otu03995
                              Otu03996 Otu03997
                                                      Otu03998
                                                                     Otu03999
##
  CSI001
                  0
                            0
                                      0
                                                0 7.035977e-05 0.000000e+00
##
   CSI012
                  0
                            0
                                      0
                                                0 1.724971e-05 0.000000e+00
   CSI022
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                  0
                            0
##
   CSI044
                                      0
                                                0 0.000000e+00 0.000000e+00
   CSI055
                  0
                            0
                                      0
                                                  0.000000e+00 0.000000e+00
##
                            0
                                                0 0.000000e+00 0.000000e+00
##
   CST065
                  0
                                      0
##
   CSI076
                            0
                                      0
                                                0 5.781349e-05 0.000000e+00
##
               Otu04000 Otu04001 Otu04002
                                                 0 \pm 1104003
                                                               Otu04004 Otu04005
   CSI001 2.345326e-05
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
##
   CSI012 5.174912e-05
   CSI022 0.000000e+00
                                            0.000000e+00 0.000000e+00
                                0
                                                                                 0
   CSI044 0.000000e+00
                                0
                                            0.000000e+00 0.000000e+00
                                                                                 0
   CSI055 0.000000e+00
                                0
                                            0.000000e+00 0.000000e+00
                                                                                 0
                                0
   CSI065 0.000000e+00
                                            0.000000e+00 0.000000e+00
                                                                                 0
                                          0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00
                                                                                 0
##
           Otu04006 Otu04007
                                   Otu04008 Otu04009 Otu04010 Otu04011
## CSI001
                  0
                            0 2.345326e-05
                                                    0
                                                              0
                                                                        0
   CSI012
                                                              0
                                                                        0
##
                  0
                            0 0.00000e+00
                                                    0
##
   CSI022
                  0
                            0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
##
   CSI044
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                              0.000000e+00
   CSI055
                  0
                                                    0
                                                              0
                                                                        0
##
                            0
##
  CSI065
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
##
  CSI076
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
##
               Otu04012 Otu04013 Otu04014
                                                 Otu04015 Otu04016 Otu04017
```

```
## CSI001 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                          0
  CSI012 0.000000e+00
                                                                 0
                                0
                                         0 3.449941e-05
                                                                          0
   CSI022 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                          0
  CSI044 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI055 2.151417e-05
                                0
                                         0 0.000000e+00
                                                                 0
                                                                          0
   CSI065 0.000000e+00
                                0
                                                                 0
                                                                          0
                                         0 0.00000e+00
##
                                0
   CSI076 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                          0
##
          Otu04018 Otu04019 Otu04020 Otu04021 Otu04022 Otu04023
                                                                        Otu04024
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                           0
                                               0
                                                        0
##
  CSI012
                  0
                                     0
                                                                  0 8.624853e-05
  CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 8.606222e-05
                  0
                           0
                                               0
                                                        0
##
   CSI044
                                     0
                                                                  0 0.00000e+00
##
   CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                           0
                                               0
##
   CSI065
                  0
                                     0
                                                        0
                                                                  0 0.00000e+00
   CSI076
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
##
##
               Otu04025 Otu04026 Otu04027 Otu04028
                                                         Otu04029
                                                                       Otu04030
   CSI001 0.0000000000
                                                   0 0.000000e+00 0.000000e+00
##
                                0
                                         0
   CSI012 0.0000000000
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                                    0.000000e+00 0.000000e+00
   CSI022 0.0000000000
                                         0
                                0
   CSI044 0.0001774413
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
##
   CSI055 0.0000000000
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
   CSI065 0.0000000000
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
                                0
                                                   0 0.000000e+00 0.000000e+00
##
  CSI076 0.0000000000
                                         0
                                      Otu04033 Otu04034 Otu04035 Otu04036
               Otu04031 Otu04032
## CSI001 0.000000e+00
                                0 0.000000000
                                                       0
                                                                 0
                                                                          0
   CSI012 0.000000e+00
                                0 0.000000000
                                                       0
                                                                 0
                                                                          0
   CSI022 0.000000e+00
                                0 0.000000000
                                                       0
                                                                 0
                                                                          0
                                                                 0
   CSI044 0.000000e+00
                                0 0.000000000
                                                       0
                                                                          0
                                                                 0
                                                       0
                                                                          0
   CSI055 0.000000e+00
                                0 0.000000000
   CSI065 0.000000e+00
                                0 0.000000000
                                                       0
                                                                 0
                                                                          0
##
   CSI076 3.757877e-04
                                0 0.0001445337
                                                       0
                                                                 0
                                                                          0
##
          Otu04037 Otu04038 Otu04039 Otu04040 Otu04041
                                                              Otu04042 Otu04043
##
  CSI001
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
  CSI012
                           0
                                                                                0
##
                  0
                                     0
                                               0
                                                        0 0.00000e+00
   CSI022
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
                           0
                                               0
                                                                                0
##
  CST044
                  0
                                     0
                                                        0 0.00000e+00
##
   CSI055
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
  CSI065
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
##
                  0
                                               0
                                                                                0
##
   CSI076
                                                        0 2.890675e-05
                            Otu04045 Otu04046 Otu04047
##
               Ot.1104044
                                                              Ot.1104048
   CSI001 0.0000000000 0.0000000000
                                             0
                                                       0 7.035977e-05
   CSI012 0.0000000000 0.0000000000
                                             0
                                                       0 0.00000e+00
   CSI022 0.0000000000 0.0000000000
                                             0
                                                       0 0.00000e+00
                                             0
   CSI044 0.0000000000 0.0000788628
                                                       0 0.00000e+00
   CSI055 0.0000000000 0.0000000000
                                              0
                                                       0 0.00000e+00
   CSI065 0.0000000000 0.0001512802
                                              0
                                                       0 0.00000e+00
##
   CSI076 0.0000000000 0.0002312540
                                              0
                                                       0 0.00000e+00
##
               Otu04049
                            Otu04050
                                          Otu04051
                                                        Otu04052 Otu04053
   CSI001 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI022 0.000000e+00 2.151556e-05 0.000000e+00 0.000000e+00
                                                                         0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
  CSI055 8.605667e-05 0.000000e+00 8.605667e-05 0.000000e+00
                                                                         0
## CSI065 3.782005e-05 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
```

```
## CSI076 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
          Otu04054 Otu04055 Otu04056 Otu04057 Otu04058 Otu04059 Otu04060
## CSI001
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI012
                                                                  0
                  0
                           0
                                     0
                                              0
                                                        0
                                                                           0
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                              0
## CSI044
                                     0
                                                        0
                                                                  0
                                                                           0
                           0
## CSI055
                  0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
##
  CSI076
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                                                    Otu04064 Otu04065
##
          0tu04061
                        Otu04062
                                      Otu04063
  CSI001
                  0 0.000000e+00 0.000000e+00 9.381303e-05
## CSI012
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
  CSI022
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
   CSI044
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                                     0
   CSI055
                  0 0.000000e+00 2.151417e-05 0.000000e+00
                                                                     0
   CSI065
                  0 0.000000e+00 3.782005e-05 0.000000e+00
                                                                     0
##
                  0 2.890675e-05 8.672024e-05 0.000000e+00
##
   CSI076
                                                                     0
##
              Otu04066 Otu04067
                                      Otu04068 Otu04069 Otu04070
                                                                       Otu04071
## CSI001 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 4.690652e-05
## CSI012 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
  CSI022 0.000000e+00
                               0 0.000000e+00
                                                       0
                                                                0 0.000000e+00
## CSI044 0.00000e+00
                               0 1.971570e-05
                                                       0
                                                                0 0.000000e+00
## CSI055 1.505992e-04
                                                       0
                               0 1.505992e-04
                                                                0 0.00000e+00
   CSI065 0.000000e+00
                               0 0.000000e+00
                                                       0
                                                                0 0.000000e+00
   CSI076 0.000000e+00
                               0 2.890675e-05
                                                       0
                                                                0 0.000000e+00
          Otu04072 Otu04073 Otu04074 Otu04075 Otu04076
                                                              Otu04077 Otu04078
## CSI001
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
                  0
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
## CSI044
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
## CSI055
                  0
                           0
                                     0
                                              0
                                                        0 2.151417e-05
                                                                               0
##
  CSI065
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
##
   CSI076
                  0
                           0
                                     0
                                                        0 0.00000e+00
          Otu04079 Otu04080
##
                                 Otu04081
                                               Otu04082 Otu04083
                                                                       Otu04084
## CSI001
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
  CSI012
                  0
                           0 0.000000e+00 0.000000e+00
##
                                                                0 0.000000e+00
## CSI022
                  0
                           0 0.000000e+00 2.151556e-05
                                                                0 0.000000e+00
## CSI044
                  Ω
                           0 0.000000e+00 0.000000e+00
                                                                0 0.000000e+00
  CSI055
                  0
                           0 8.605667e-05 0.000000e+00
                                                                0 0.000000e+00
  CSI065
                  Ω
                           0 0.000000e+00 0.000000e+00
##
                                                                0 3.782005e-04
   CSI076
                           0 0.000000e+00 0.000000e+00
                                                                0 2.890675e-05
          Otu04085
                        Otu04086
                                      Otu04087 Otu04088 Otu04089
##
                                                                       0t.1104090
##
   CSI001
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.000000e+00
                                                       0
##
  CSI012
                  0 3.449941e-05 0.000000e+00
                                                                0 0.000000e+00
  CSI022
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
  CSI044
                  0 0.000000e+00 0.000000e+00
                                                       0
##
                                                                0 0.00000e+00
##
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
##
   CSI065
                  0 0.000000e+00 7.564010e-05
                                                       0
                                                                0 3.782005e-05
   CST076
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 5.781349e-05
##
          Otu04091 Otu04092
                                 Otu04093 Otu04094 Otu04095 Otu04096 Otu04097
## CSI001
                  0
                                                  0
                                                            0
                                                                      0
                                                                               0
                           0 1.172663e-04
                                                   0
                                                            0
                                                                               0
## CSI012
                  0
                           0 1.724971e-05
                                                                      0
## CSI022
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI044
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
```

```
## CSI055
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                0
  CSI065
                            0 3.782005e-05
                                                   0
                                                             0
                                                                       0
                                                                                0
##
                  0
                            0 2.890675e-05
##
   CSI076
                  0
                                                   0
                                                             0
                                                                                0
##
               Otu04098 Otu04099
                                      Otu04100 Otu04101 Otu04102
                                                                        Otu04103
   CSI001 0.0001172663
                                0 2.345326e-05
                                                       0
                                                                 0 0.000000e+00
                                                       0
   CSI012 0.0001034982
                                0 0.00000e+00
                                                                 0 0.000000e+00
   CSI022 0.0000000000
                                0 2.151556e-05
                                                        0
                                                                 0 0.00000e+00
                                                                 0 0.000000e+00
   CSI044 0.0000000000
                                0 0.00000e+00
                                                       0
   CSI055 0.0000000000
                                0 0.00000e+00
                                                       0
                                                                 0 0.000000e+00
                                                        0
   CSI065 0.0000000000
                                0 0.000000e+00
                                                                 0 0.000000e+00
   CSI076 0.0000000000
                                0 0.00000e+00
                                                        0
                                                                 0 0.00000e+00
##
          Otu04104 Otu04105 Otu04106 Otu04107 Otu04108
                                                               Otu04109 Otu04110
##
   CSI001
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
   CSI012
                            0
                                               0
                                                                                0
##
                  0
                                     0
                                                         0 1.724971e-05
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
##
   CSI044
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
                  0
                            0
                                               0
                                                                                0
##
   CSI055
                                     0
                                                         0 0.00000e+00
   CSI065
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
##
                                                                                0
##
   CST076
                  0
                            0
                                     0
                                               0
                                                         0.0.000000e+00
##
          Otu04111
                        0tu04112
                                      Otu04113 Otu04114
                                                              Otu04115 Otu04116
##
   CSI001
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI012
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
  CSI022
                  0 0.000000e+00 0.000000e+00
##
                                                       0.000000e+00
                                                                               0
                  0 0.000000e+00 0.000000e+00
   CSI044
                                                       0 0.00000e+00
                                                                               0
##
   CST055
                  0 8.605667e-05 4.302833e-05
                                                       0 3.227125e-04
                                                                               0
   CSI065
                    0.000000e+00 3.782005e-05
                                                       0 0.00000e+00
                                                                               0
   CSI076
                    0.000000e+00 2.890675e-05
                                                       0 2.890675e-05
                                                                               0
##
                  0
##
          0tu04117
                        Otu04118
                                      Otu04119 Otu04120 Otu04121
                                                                        Otu04122
   CSI001
##
                  0 2.345326e-05 0.000000e+00
                                                        0
                                                                 0 2.345326e-05
   CSI012
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                 0 8.624853e-05
##
   CSI022
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI044
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
##
   CSI055
                    0.000000e+00 2.151417e-05
                                                        0
                                                                 0 0.00000e+00
##
   CSI065
                    0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
                    2.890675e-05 0.000000e+00
                                                                 0
                                                                   0.000000e+00
##
   CSI076
                  0
          0tu04123
                        Otu04124 Otu04125 Otu04126
                                                          Otu04127
##
                                                                        Ot:1104128
##
  CSI001
                  0 0.000000000
                                          0
                                                   0 0.000000e+00 0.0000000000
##
  CSI012
                  0 0.0001552474
                                          0
                                                   0 8.624853e-05 0.0000000000
   CSI022
                    0.000000000
                                          0
                                                     0.000000e+00 0.0000000000
                                          0
                                                     0.000000e+00 0.0000000000
##
   CSI044
                    0.000000000
                                          0
   CSI055
                    0.000000000
                                                     0.000000e+00 0.0000000000
   CSI065
                    0.000000000
                                          0
                                                     0.000000e+00 0.0009455013
##
                  0
##
   CST076
                  0
                    0.000000000
                                          0
                                                   0
                                                     0.000000e+00 0.000000000
##
          Otu04129
                    0tu04130
                                  Otu04131 Otu04132
                                                     Otu04133 Otu04134 Otu04135
##
  CSI001
                  0
                            0 4.690652e-05
                                                   0
                                                             0
                                                                       0
                                                                                0
                                                             0
                                                                                0
  CSI012
                  0
                                                   0
                                                                       0
##
                            0 0.00000e+00
##
   CSI022
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                0
                  0
                                                   0
                                                             0
                                                                                0
   CSI044
                              0.000000e+00
                                                                       0
##
   CSI055
                  0
                            0
                              2.151417e-05
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI065
                  0
                            0
                              0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                0
##
                            0 5.492282e-04
                                                             0
                                                                       0
                                                                                0
##
   CST076
                  0
                                                   0
##
          Otu04136 Otu04137
                              Otu04138 Otu04139
                                                     Otu04140
                                                                    Otu04141
## CSI001
                                               0 4.690652e-05 0.000000e+00
                  0
                            0
                                     0
## CSI012
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
```

```
## CSI022
                  0
                            0
                                               0 2.151556e-05 0.000000e+00
                  0
                            0
                                               0 0.000000e+00 0.000000e+00
##
  CST044
                                     0
  CSI055
##
                  0
                            0
                                     0
                                               0 0.000000e+00 4.302833e-05
  CSI065
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
##
##
   CST076
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
          Otu04142 Otu04143 Otu04144
                                            Otu04145 Otu04146 Otu04147
##
## CSI001
                  0
                            0
                                     0 9.381303e-05
                                                             0
                                                                      0
## CSI012
                  0
                            0
                                     0
                                       1.034982e-04
                                                             0
                                                                      0
##
   CSI022
                  0
                            0
                                     Λ
                                       0.000000e+00
                                                             0
                                                                      0
                            0
                                                             0
##
   CSI044
                  0
                                       0.000000e+00
                                                                      Λ
   CSI055
                  0
                            0
                                       0.000000e+00
                                                             0
                                                                      0
                  0
                            0
                                                             0
                                                                      0
##
   CSI065
                                       0.000000e+00
##
   CSI076
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                  0tu04152
##
               Otu04148
                            Otu04149 Otu04150
                                                    Otu04151
   CSI001 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
##
   CSI012 0.0000000000 1.724971e-05
                                              0 0.000000e+00 0.000000e+00
   CSI022 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI044 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI055 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI065 0.0001891003 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
##
   CSI076 0.0000000000 0.000000e+00
                                              0 8.672024e-05 0.000000e+00
          Otu04153 Otu04154
                                  Otu04155 Otu04156 Otu04157 Otu04158 Otu04159
##
## CSI001
                                                   0
                                                             0
                                                                      0
                  \cap
                            0.000000e+00
                                                                                0
   CSI012
                                                             0
                                                                                0
##
                  0
                            0 0.00000e+00
                                                   0
                                                                      0
                                                                                0
## CSI022
                  0
                            0 2.151556e-05
                                                   0
                                                             0
                                                                      0
   CSI044
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI055
                  0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
                            0
                             0.000000e+00
                                                   0
                                                                                0
##
   CSI065
                  0
                            0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
   CSI076
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
##
##
          Otu04160
                        Otu04161 Otu04162
                                                Otu04163
                                                              Otu04164 Otu04165
##
  CSI001
                  0 0.000000000
                                         0 0.000000e+00 0.0000000000
                                                                               0
##
   CSI012
                  0.0000000000
                                         0 1.724971e-05 0.0003622438
                                                                               0
   CSI022
                    0.000000000
                                         0 0.000000e+00 0.0000000000
                                                                               0
   CSI044
                  0.000000000
                                         0 0.000000e+00 0.0000000000
                                                                               0
##
   CSI055
                  0.000000000
                                         0 2.366558e-04 0.0000000000
                                                                               0
##
                                         0 0.000000e+00 0.0000000000
##
   CST065
                  0 0.000000000
                                                                               0
##
   CSI076
                  0 0.0001156270
                                         0 0.000000e+00 0.0000000000
                                                                               0
##
               0±1104166
                                          Otu04168 Otu04169 Otu04170
                            Ot:1104167
   CSI001 0.000000e+00 0.000000e+00 0.0000000000
                                                            0
                                                                     0
   CSI012 0.000000e+00 0.000000e+00 0.0000000000
                                                            Λ
                                                                     0
   CSI022 0.000000e+00 0.000000e+00 0.0000000000
                                                                     0
   CSI044 0.000000e+00 0.000000e+00 0.0004731768
                                                            0
                                                                     0
   CSI055 0.000000e+00 0.000000e+00 0.0000000000
                                                            0
                                                                     0
                                                                     0
   CSI065 0.000000e+00 0.000000e+00 0.0000000000
                                                            Λ
                                                                     0
   CSI076 0.000000e+00 0.000000e+00 0.0000000000
                                                            0
##
               Otu04171 Otu04172 Otu04173 Otu04174
                                                          Otu04175 Otu04176
   CSI001 0.000000e+00
                                0
                                         0
                                                   0 2.345326e-05
                                                                           0
                                0
                                                                           0
   CSI012 3.449941e-05
                                         0
                                                     0.000000e+00
   CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                     0.000000e+00
                                                                           0
   CSI044 0.000000e+00
                                0
                                         0
                                                     0.000000e+00
                                                                           0
   CSI055 0.000000e+00
                                0
                                         0
                                                                           0
                                                     0.000000e+00
   CSI065 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
##
  CSI076 1.156270e-04
                                0
                                         0
                                                   0.000000e+00
                                                                           0
##
               Otu04177
                            Otu04178
                                          Otu04179 Otu04180 Otu04181
```

```
## CSI001 2.345326e-05 0.000000e+00 2.345326e-05
                                                                     0
   CSI012 0.000000e+00 1.724971e-05 3.449941e-05
                                                            0
                                                                     0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                            n
                                                                     0
   CSI055 0.000000e+00 4.302833e-05 0.000000e+00
                                                                     0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                            0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                    Otu04185 Otu04186 Otu04187
##
               Otu04182 Otu04183
                                      Ot:1104184
   CSI001 9.381303e-05
                                0 7.035977e-05 0.000000e+00
                                                                     0
                                                                               0
   CSI012 0.000000e+00
                                0 0.000000e+00 3.449941e-04
                                                                     0
                                                                               0
   CSI022 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI044 0.000000e+00
                                                                               0
   CSI055 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
                                                                     0
   CSI065 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                               0
   CSI076 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
##
##
               Otu04188 Otu04189
                                      Otu04190 Otu04191
                                                              Otu04192 Otu04193
##
   CSI001 2.345326e-05
                                0 2.345326e-05
                                                       0 2.345326e-05
                                                                               0
   CSI012 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI022 0.000000e+00
                                                       0 0.00000e+00
                                0 0.00000e+00
                                                                               0
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
##
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI065 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000e+00
  CSI076 0.000000e+00
##
                                0 0.00000e+00
                                                       0 4.625079e-04
                                                                               0
##
          Otu04194
                        Otu04195 Otu04196
                                                Otu04197 Otu04198 Otu04199
                                         0 1.641728e-04
## CSI001
                  0 0.00000e+00
                                                                 0
                                                                           0
  CSI012
                  0 1.724971e-05
                                         0 1.724971e-05
                                                                 0
                                                                           0
  CSI022
                  0 4.303111e-05
                                         0 0.000000e+00
                                                                 0
                                                                           0
##
                                                                 0
##
   CSI044
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                           0
                                                                 0
                  0 0.000000e+00
                                                                           0
##
   CSI055
                                         0 6.454250e-05
  CSI065
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
##
   CSI076
                  0 5.781349e-05
                                         0 0.00000e+00
                                                                 0
                                                                           0
##
          Otu04200
                        Otu04201
                                      Otu04202 Otu04203 Otu04204 Otu04205
##
  CSI001
                  0 0.000000000 0.000000e+00
                                                       0
                                                                 0
                                                                           0
  CSI012
                                                                 0
                                                                           0
##
                  0 0.000000000 0.000000e+00
                                                       0
   CSI022
                  0 0.0000000000 2.151556e-05
                                                       0
                                                                 0
                                                                           0
                  0 0.0000000000 0.000000e+00
                                                                 0
##
  CST044
                                                       0
                                                                           0
##
   CSI055
                  0 0.0000000000 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
  CSI065
                  0 0.000000000 0.000000e+00
                                                       Λ
                                                                 0
                                                                           0
                  0 0.0000000000 0.000000e+00
                                                       0
                                                                 0
##
   CST076
                                                                           0
##
          Otu04206
                        Otu04207 Otu04208 Otu04209 Otu04210 Otu04211 Otu04212
                  0 4.690652e-05
  CSI001
                                         0
                                                   0
                                                            0
## CSI012
                  0 0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                         0
   CSI022
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                         0
                                                   0
                                                                                0
   CSI044
                   0.000000e+00
                                                             0
                                                                      Λ
##
  CSI055
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI065
                   0.000000e+00
                                         0
                                                   0
                                                             0
                                                                                0
                  0
                                                                      0
##
   CSI076
                  0
                   0.000000e+00
                                         0
                                                             0
                                                                      0
                                                                                0
##
          Otu04213 Otu04214 Otu04215 Otu04216
                                                     Otu04217 Otu04218 Otu04219
## CSI001
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
                                                                                0
##
  CSI012
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
                                                                                0
                  0
                           0
                                     0
                                                                      0
                                                                                0
##
  CSI022
                                               0 0.000000000
## CSI044
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
                                                                                0
## CSI055
                  0
                           0
                                     0
                                               0 0.0002796842
                                                                      0
                                                                                0
## CSI065
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
                                                                                0
```

```
## CSI076
                 0
                           0
                                    0
                                              0 0.0000000000
                                                                     0
                                                                               0
##
          Oti104220 Oti104221 Oti104222
                                           Ot:1104223
                                                        Oti104224 Oti104225
                                     0 0.000000e+00 4.690652e-05
## CSI001
                  0
                           0
                                                                          0
## CSI012
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          Λ
## CSI022
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
## CST044
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
  CSI055
                  0
                                                                          0
## CSI065
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
  CSI076
                  0
                           Λ
                                     0 1.156270e-04 0.000000e+00
                                                                          0
              Otu04226 Otu04227
##
                                     0tu04228
                                                  Otu04229
                                                                Otu04230
  CSI001 9.381303e-05
                               0 0.00000e+00 0.000000e+00 0.000000e+00
                               0 0.00000e+00 0.000000e+00 1.724971e-05
  CSI012 3.449941e-05
   CSI022 0.000000e+00
                               0 0.00000e+00 0.000000e+00 0.000000e+00
                               0 1.97157e-05 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00
   CSI055 0.000000e+00
                               0 0.00000e+00 8.605667e-05 0.000000e+00
   CSI065 0.000000e+00
                               0 0.00000e+00 3.782005e-05 0.000000e+00
   CSI076 0.000000e+00
                               0 0.00000e+00 1.734405e-04 0.000000e+00
##
          0tu04231
                        Otu04232
                                      Otu04233 Otu04234
                                                             Otu04235 Otu04236
                 0 0.000000e+00 0.000000e+00
## CST001
                                                      0 2.345326e-05
                                                                              0
## CSI012
                  0 1.724971e-05 0.000000e+00
                                                      0 8.624853e-05
                                                                              0
##
  CSI022
                  0 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                              0
                  0 0.000000e+00 0.000000e+00
  CST044
                                                      0 0.000000e+00
                  0 0.000000e+00 2.151417e-05
## CSI055
                                                      0 1.290850e-04
                                                                              0
                  0 0.000000e+00 0.000000e+00
  CSI065
                                                      0 0.000000e+00
                                                      0 0.000000e+00
##
  CSI076
                  0 0.000000e+00 0.000000e+00
                                                                              0
          Otu04237 Otu04238 Otu04239
                                          Otu04240 Otu04241 Otu04242 Otu04243
## CSI001
                 0
                           0
                                                            0
                                                                     0
                                                                               0
                                    0 3.517989e-04
                                                                               0
  CSI012
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
## CSI022
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
## CSI044
                 0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
## CSI055
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
##
  CSI065
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
   CSI076
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
##
          Otu04244 Otu04245 Otu04246 Otu04247
                                                    Otu04248 Otu04249
  CSI001
                 0
                           0
                                     0
                                              0 4.690652e-05
                                                                     0
##
  CSI012
                           0
                                     0
                                                                     0
##
                  0
                                              0 1.724971e-05
## CSI022
                  0
                           0
                                     0
                                              0 6.454667e-05
                                                                     0
## CSI044
                  Ω
                           0
                                     0
                                              0 0.000000e+00
                                                                     0
                  0
                           0
                                     0
   CST055
                                              0.0.000000e+00
                                                                     0
                           Λ
                                     0
##
  CSI065
                  \cap
                                              0.0.000000e+00
                                                                     0
                           0
   CST076
                                              0.0.000000e+00
              Otu04250 Otu04251
                                     Otu04252 Otu04253
##
                                                             0t_{11}04254
   CSI001 0.0000000000
                               0 0.000000000
                                                      0 0.00000e+00
   CSI012 0.0000000000
                               0 0.000000000
                                                      0 0.00000e+00
   CSI022 0.0000000000
                               0 0.000000000
                                                      0 0.00000e+00
  CSI044 0.0000000000
                               0 0.000000000
                                                      0 0.00000e+00
   CSI055 0.0000000000
                               0 0.000000000
                                                      0 0.00000e+00
   CSI065 0.0000000000
                               0 0.000000000
                                                      0 0.000000e+00
   CSI076 0.0000000000
                               0.0.0000000000
                                                      0 0.000000e+00
##
              Otu04255 Otu04256
                                     Otu04257 Otu04258 Otu04259 Otu04260
## CSI001 0.000000e+00
                                                      0
                                                                0
                                                                          0
                               0 7.035977e-05
                                                                0
                                                                          0
## CSI012 0.000000e+00
                               0 0.00000e+00
                                                      0
## CSI022 0.000000e+00
                               0 2.151556e-05
                                                      0
                                                                0
                                                                          0
## CSI044 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0
                                                                          0
```

```
## CSI055 1.290850e-04
                                0 2.151417e-05
                                                        0
                                                                  0
                                                                           0
   CSI065 1.134602e-04
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                           0
   CSI076 2.890675e-05
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                           0
##
           Otu04261 Otu04262
                                  Otu04263 Otu04264 Otu04265 Otu04266 Otu04267
##
  CST001
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI012
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
                                                   0
                                                             0
                                                                                 0
  CSI022
                  0
                            0 8.606222e-05
                                                                       0
## CSI044
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI055
                  0
                            Ω
                              0.000000e+00
                                                   0
                                                             0
                                                                                 O
                                                   0
                                                             0
                                                                       Λ
                                                                                 0
##
   CSI065
                  Λ
                              0.000000e+00
   CSI076
                  0
                            0
                             0.000000e+00
                                                   0
                                                             0
                                                                                 0
                              Otu04270 Otu04271 Otu04272 Otu04273
                                                                     Otu04274
##
          Otu04268
                    Otu04269
##
   CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
  CSI012
                            0
                                     0
                                               0
                                                         0
                                                                   0
##
                  0
                                                                            0
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI055
                                     0
   CSI065
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                            0
                                               0
                                                                   0
                                                                            0
##
   CST076
                  0
                                     0
                                                         0
##
          0tu04275
                        Otu04276 Otu04277
                                                0tu04278
                                                              Otu04279 Otu04280
                  0 1.172663e-04
##
  CSI001
                                          0 0.000000e+00 1.876261e-04
                                                                                O
  CSI012
                  0 1.379977e-04
                                          0 0.000000e+00 8.624853e-05
                                                                                0
                                          0 0.000000e+00 0.000000e+00
## CSI022
                  0 6.454667e-05
                                                                                0
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
   CSI044
                                                                                0
##
   CST055
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
   CSI065
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
##
   CSI076
                                          0 0.000000e+00 0.000000e+00
                                                                                0
                  0 0.000000e+00
##
               Otu04281 Otu04282 Otu04283 Otu04284 Otu04285
                                                                    Otu04286
   CSI001 0.0000000000
                                0
                                          0
                                                   0
                                                             0 0.000000000
##
   CSI012 0.0000000000
                                0
                                          0
                                                   0
                                                             0 0.000000000
   CSI022 0.0000000000
                                0
                                          0
                                                   0
                                                             0 0.0006024356
   CSI044 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                               0.0000000000
                                          0
   CSI055 0.0000645425
                                0
                                                   0
                                                               0.000000000
   CSI065 0.0000000000
                                0
                                          0
                                                   0
                                                               0.000000000
   CSI076 0.0004625079
                                0
                                          0
                                                   0
                                                             0
                                                               0.000000000
                                            Otu04290 Otu04291
          Otu04287 Otu04288 Otu04289
##
                                                                    Ot:1104292
## CSI001
                  0
                            0
                                     0 0.00000e+00
                                                             0 0.00000e+00
## CSI012
                  0
                            0
                                     0 1.724971e-05
                                                             0 0.000000e+00
## CSI022
                  0
                            0
                                      0 0.000000e+00
                                                             0 0.000000e+00
                  0
                            0
                                                             0 0.00000e+00
##
  CST044
                                     0 0.00000e+00
                  0
                            0
   CSI055
                                     0 0.00000e+00
                                                             0 0.00000e+00
  CSI065
                  0
                            0
                                     0 0.00000e+00
                                                             0 0.00000e+00
##
##
   CST076
                  0
                            0
                                     0 0.00000e+00
                                                             0 0.000000e+00
##
          Otu04293 Otu04294
                                  Otu04295 Otu04296
                                                          Otu04297
                                                                        Otu04298
## CSI001
                  0
                            0 0.00000e+00
                                                   0 4.690652e-05 0.000000e+00
## CSI012
                  0
                            0 0.000000e+00
                                                   0 5.174912e-05 0.000000e+00
##
   CSI022
                  0
                            0
                             0.000000e+00
                                                   0 2.151556e-05 0.000000e+00
                  0
   CSI044
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
   CSI055
                  0
                            0 2.151417e-05
                                                   0 0.000000e+00 0.000000e+00
##
   CSI065
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 1.156270e-04
##
   CST076
                  0
                            0 0.00000e+00
##
          Otu04299
                        Otu04300
                                      Otu04301 Otu04302 Otu04303 Otu04304
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
## CSI012
                  0 1.724971e-05 0.000000e+00
                                                        0
                                                                  0
                                                                           0
```

```
## CSI022
                  0 6.454667e-05 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                  0 0.000000e+00 3.943140e-05
                                                                  0
##
  CST044
                                                        0
                                                                           0
##
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
  CSI065
                    0.000000e+00 3.782005e-05
                                                                  0
                                                                           0
##
                                                        0
##
   CST076
                    2.890675e-05 2.890675e-04
                                                        0
                                                                  0
                                                                           0
          Otu04305 Otu04306
                                  Otu04307
                                                Otu04308 Otu04309 Otu04310
##
  CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
## CSI012
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
##
   CSI022
                  0
                            0 2.151556e-05 0.000000e+00
                                                                  0
                                                                           0
                                                                  0
                                                                           0
##
   CSI044
                  0
                            0
                             0.000000e+00 0.000000e+00
   CSI055
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
##
   CSI065
                            0
##
   CSI076
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
##
           Otu04311 Otu04312 Otu04313
                                            Otu04314
                                                          Otu04315 Otu04316
## CSI001
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
   CSI012
                  0
                            0
                                     0 6.899883e-05 0.000000e+00
                                                                           0
                            0
                                                                           0
##
   CSI022
                  0
                                     0 0.000000e+00 2.151556e-05
   CSI044
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
   CSI055
                            0
                                     0 0.000000e+00 2.151417e-05
                                                                           0
##
                  0
##
   CSI065
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
   CST076
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           Λ
##
               Otu04317
                             Otu04318 Otu04319 Otu04320
                                                              Otu04321 Otu04322
   CSI001 0.000000e+00 0.000000e+00
                                              0
##
                                                        0 0.000000e+00
                                                                                0
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI022 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI055 4.302833e-05 1.075708e-04
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI076 0.000000e+00 5.781349e-05
                                                        0 0.000000e+00
                                                                                0
##
##
               Otu04323 Otu04324 Otu04325 Otu04326
                                                          Otu04327 Otu04328
##
   CSI001 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI012 1.724971e-05
                                0
                                          0
                                                   0 0.000000e+00
                                                                           0
   CSI022 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
                                0
                                          0
                                                                           0
   CSI044 0.000000e+00
                                                     0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
   CSI065 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
##
##
   CSI076 0.000000e+00
                                0
                                          0
                                                   0 8.672024e-05
                                                                           0
##
               Otu04329 Otu04330
                                      Otu04331 Otu04332 Otu04333 Otu04334
   CSI001 0.000000e+00
                                0 4.690652e-05
                                                        0
                                                                  0
                                                                           0
   CSI012 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
                                0 0.00000e+00
   CSI022 0.000000e+00
                                                                  0
                                0 0.00000e+00
                                                        0
                                                                           0
   CSI044 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                                0 1.971570e-05
                                                                  0
   CSI055 2.151417e-05
                                0 6.454250e-05
                                                        0
                                                                           0
                                                        0
                                                                  0
                                                                           Λ
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
##
   CSI076 2.312540e-04
                                0 0.00000e+00
                                                                           0
##
           Otu04335
                                      Otu04337 Otu04338 Otu04339
                        Otu04336
                                                                   Otu04340
##
   CSI001
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
   CSI012
                                                                  0
                                                                           0
##
                  0 5.174912e-05 0.000000e+00
                                                        0
   CSI022
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
   CSI044
                    0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                    0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
   CSI055
##
   CSI065
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
## CSI076
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
          Otu04341
                        Otu04342 Otu04343
                                                Otu04344
                                                              0tu04345
```

```
## CSI001
               0 0.00000e+00
                                   0 0.000000e+00 0.000000e+00
  CST012
               0 0.000000e+00
                                   0 0.000000e+00 0.000000e+00
##
               0 0.000000e+00
  CSI022
                                   0 2.151556e-05 4.303111e-05
  CSI044
               0 0.000000e+00
                                   0 9.857850e-05 0.000000e+00
##
##
  CSI055
               0 0.000000e+00
                                   0 0.000000e+00 0.000000e+00
                                   0 0.000000e+00 0.000000e+00
  CSI065
               0 0.000000e+00
##
                                   0 2.890675e-05 0.000000e+00
##
  CSI076
               0 0.000000e+00
            Otu04346
                        Otu04347 Otu04348 Otu04349 Otu04350 Otu04351
##
  CSI001 0.000000e+00 0.000000e+00
                                       0
                                               Λ
                                                        0
                                                                0
                                       0
                                               0
                                                        0
                                                                0
  CSI012 0.000000e+00 0.000000e+00
  CSI022 0.000000e+00 0.000000e+00
                                       0
                                               0
                                                        0
                                                                0
  CSI044 0.000000e+00 0.000000e+00
                                       0
                                               0
                                                        0
                                                                0
  CSI055 4.302833e-05 0.000000e+00
                                       0
                                               0
                                                        0
                                                                0
                                                        0
  CSI065 0.000000e+00 0.000000e+00
                                       0
                                               0
                                                                0
  CSI076 8.672024e-05 2.890675e-05
                                       0
                                               0
                                                        0
                                                                0
##
            Otu04352 Otu04353 Otu04354
                                         0tu04355
                                                     Otu04356
                           0
##
  CSI001 2.345326e-05
                                   0 0.000000e+00 0.000000e+00
  CSI012 3.449941e-05
                           0
                                   0 5.174912e-05 0.000000e+00
  CSI022 0.000000e+00
                                   0 0.000000e+00 0.000000e+00
                           0
  CSI044 0.000000e+00
                           0
                                   0 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
                           0
                                   0 6.454250e-05 4.302833e-05
  CSI065 0.000000e+00
                           0
                                   0 0.000000e+00 0.000000e+00
  CSI076 0.000000e+00
                           0
                                   0 8.672024e-05 0.000000e+00
##
##
            Otu04357 Otu04358
                                 Otu04359
                                             Otu04360 Otu04361
## CSI001 0.000000e+00
                           0 2.345326e-05 2.345326e-05
                                                           0
  CSI012 1.724971e-05
                           0 0.000000e+00 3.449941e-05
                                                           0
  CSI022 0.000000e+00
                           0 0.000000e+00 4.303111e-05
                                                           0
  CSI044 0.000000e+00
                           0 0.000000e+00 0.000000e+00
                                                           0
  CSI055 0.000000e+00
                           0 0.000000e+00 0.000000e+00
                                                           0
  CSI065 0.000000e+00
                           0 0.000000e+00 0.000000e+00
                                                           0
##
  CSI076 0.000000e+00
                           0 0.000000e+00 0.000000e+00
                                                           0
##
           Otu04362
                       Otu04363
                                   Otu04364
                                               Otu04365 Otu04366
  0
  0
  0
  0
  CSI055 0.00000e+00 4.302833e-05 0.000000e+00 0.000000000
                                                              0
  0
  0
##
         Otu04367 Otu04368 Otu04369
                                                 Otu04371 Otu04372
                                     Ot:1104370
## CSI001
                       0
                                0 0.000000e+00 0.0000000000
## CSI012
               0
                       0
                                0 0.000000e+00 0.0000000000
                                                                0
## CSI022
               0
                       0
                                0 4.303111e-05 0.0000000000
                                                                0
               0
                       0
                                                                0
## CSI044
                                0 0.000000e+00 0.0000000000
                       0
## CSI055
               0
                                0 0.000000e+00 0.0000000000
                                                                0
                                0 0.000000e+00 0.0000000000
## CSI065
               0
                       0
                                                                0
##
  CSI076
               0
                       0
                                0 0.000000e+00 0.0000000000
                                                                0
                     Otu04374 Otu04375 Otu04376 Otu04377 Otu04378 Otu04379
##
         0tu04373
## CSI001
               0 0.000000e+00
                                   0
                                            0
                                                    0
                                                            0
                                                                    0
## CSI012
               0 0.000000e+00
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
##
  CSI022
               0.0.000000e+00
## CSI044
               0 0.000000e+00
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
## CSI055
               0 2.151417e-05
                                   0
                                            0
                                                    0
                                                            0
                                                                    0
## CSI065
               0 0.00000e+00
                                   0
                                            0
                                                    0
                                                            0
                                                                     0
```

```
## CSI076
                  0 0.00000e+00
                                                            0
                                                                     0
          Otu04380
##
                        Otu04381 Otu04382
                                               Otu04383 Otu04384 Otu04385
## CSI001
                  0 1.172663e-04
                                         0 0.000000e+00
                                                                0
## CSI012
                  0 8.624853e-05
                                         0 5.174912e-05
                                                                0
                                                                          Λ
## CSI022
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
## CSI044
                                                                0
## CSI055
                  0 0.00000e+00
                                         0 4.302833e-05
                                                                0
## CSI065
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                          0
## CSI076
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
          Otu04386 Otu04387 Otu04388 Otu04389 Otu04390 Otu04391
##
                                                                       Otu04392
## CSI001
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0 9.381303e-05
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 1.724971e-05
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 2.151556e-05
                           0
                                              0
## CSI044
                  0
                                     0
                                                        0
                                                                 0 0.00000e+00
## CSI055
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.000000e+00
## CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
                  0
                           0
                                     0
                                              0
                                                        0
##
  CSI076
                                                                 0 0.00000e+00
          Otu04393
                        Otu04394
                                      Otu04395 Otu04396 Otu04397 Otu04398
                 0 0.000000e+00 0.000000e+00
## CST001
                                                      0
                                                                0
                                                                          0
## CSI012
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0
                                                                          0
## CSI022
                  0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                0
                                                                          0
## CSI044
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0
## CSI055
                  0 0.000000e+00 0.000000e+00
                                                                0
                                                       0
                                                                          0
                  0 0.000000e+00 0.000000e+00
                                                                0
## CSI065
                                                       0
                                                                0
## CSI076
                  0 0.000000e+00 2.890675e-05
                                                       Ω
          Otu04399
                        Otu04400 Otu04401
                                              Otu04402 Otu04403 Otu04404
## CSI001
                  0 0.000000e+00
                                         0 0.00000e+00
                                                               0
                                                                         0
## CSI012
                  0 0.000000e+00
                                         0 0.00000e+00
                                                               0
                                                                         0
## CSI022
                  0 0.000000e+00
                                         0 0.00000e+00
                                                               0
                                                                         0
## CSI044
                  0 0.000000e+00
                                         0 1.97157e-05
                                                               0
## CSI055
                  0 0.00000e+00
                                         0 0.00000e+00
                                                               0
                                                                         0
##
  CSI065
                  0 0.000000e+00
                                         0 0.00000e+00
                                                               0
                  0 0.00000e+00
                                         0 0.00000e+00
                                                               0
                                           Otu04408 Otu04409 Otu04410 Otu04411
##
          Otu04405 Otu04406 Otu04407
## CSI001
                 0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
## CSI012
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
## CSI022
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                                                                               0
## CSI044
                  Ω
                           0
                                     0 0.000000e+00
                                                            Λ
                                                                     0
                                                                               0
## CSI055
                  0
                           0
                                     0 4.302833e-05
                                                            0
                                                                     0
                                                                               0
## CSI065
                  Ω
                           0
                                                            Λ
                                                                     0
                                                                               0
                                     0 0.00000e+00
                  0
                           0
                                     0 0.000000e+00
                                                            0
   CST076
          Otu04412 Otu04413 Otu04414
                                           Otu04415 Otu04416 Otu04417
##
## CSI001
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                     0
                           0
                                                            0
## CSI012
                  0
                                     0 0.00000e+00
                                                                     0
                           0
                                                            0
## CSI022
                  0
                                     0 0.00000e+00
## CSI044
                           0
                 0
                                                            0
                                     0 0.00000e+00
                                                                     0
## CSI055
                 0
                           0
                                     0 2.151417e-05
                                                            0
                                                                     0
                  0
                           0
                                                            0
## CSI065
                                     0 0.000000e+00
   CSI076
                 0
                           0
                                    0 0.000000e+00
                                                            0
                                                                     0
##
             Otu04418 Otu04419
                                    Otu04420
                                               Otu04421 Otu04422 Otu04423
## CSI001 0.00000e+00
                              0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
## CSI012 0.00000e+00
                              0 0.000000e+00 0.000000000
                                                                   0
                                                                             0
## CSI022 0.00000e+00
                              0 0.000000e+00 0.000000000
                                                                   0
                                                                             0
## CSI044 0.00000e+00
                              0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
```

```
## CSI055 0.00000e+00
                            0 0.000000e+00 0.000000000
                                                               0
  CSI065 0.00000e+00
                            0 0.000000e+00 0.0001134602
                                                               0
  CSI076 0.00000e+00
                            0 0.000000e+00 0.0000000000
                                                               0
##
          Otu04424
                      Otu04425 Otu04426 Otu04427
                                                     Otu04428 Otu04429
                0 0.000000e+00
##
  CST001
                                      0
                                               0 0.000000e+00
                                                                     0
##
  CSI012
                                      0
                                                                     0
                0 0.00000e+00
                                               0 0.00000e+00
                                      0
  CSI022
                0 0.00000e+00
                                               0 0.00000e+00
                                                                     0
## CSI044
                0 0.00000e+00
                                      0
                                               0 1.971570e-05
                                                                     0
  CSI055
                0 0.000000e+00
                                      0
                                               0 0.00000e+00
                                                                     0
                                      0
                                                                     0
##
  CSI065
                0 3.782005e-05
                                               0 0.00000e+00
  CSI076
                0
                  0.000000e+00
                                      0
                                               0 8.672024e-05
##
         Otu04430
                      Otu04431
                                   Otu04432
                                                Otu04433
                                                             Otu04434
##
  CSI001
                ##
  CSI012
                0 1.724971e-05 0.0000000000 0.000000e+00 0.000000000
  CSI022
                ##
  CSI044
                0 0.000000e+00 0.0003011983 2.151417e-05 0.0001505992
  CSI055
##
  CSI065
                 0 0.000000e+00 0.000000000 0.000000e+00 0.000000000
                0 0.000000e+00 0.0000000000 1.156270e-04 0.0000000000
##
  CST076
##
          Otu04435 Otu04436 Otu04437
                                        Otu04438 Otu04439
                                                              0t.1104440
##
  CSI001
                0
                         0
                                  0 0.00000e+00
                                                        0 0.000000e+00
  CSI012
                0
                         0
                                  0 3.449941e-04
                                                        0.000000e+00
## CSI022
                         0
                0
                                  0 0.00000e+00
                                                        0.000000e+00
                         0
  CSI044
                0
                                  0 0.00000e+00
                                                        0 0.00000e+00
                                  0 0.000000e+00
##
  CST055
                0
                         0
                                                        0 0.00000e+00
  CSI065
                0
                         0
                                  0 0.00000e+00
                                                        0 0.00000e+00
  CSI076
                0
                         0
                                  0 0.000000e+00
                                                        0 0.00000e+00
##
                  Otu04442
                           Otu04443 Otu04444 Otu04445
##
         Otu04441
                                                         Otu04446
                0
                         0
                                                    0 0.00000e+00
##
  CSI001
                                  0
                                           0
  CSI012
                0
                         0
                                  0
                                           0
                                                    0 0.00000e+00
##
  CSI022
                0
                         0
                                  0
                                           0
                                                    0 0.00000e+00
##
  CSI044
                0
                         0
                                  0
                                           0
                                                    0 0.00000e+00
  CSI055
                0
                         0
                                  0
                                           0
                                                    0 0.00000e+00
                         0
                                           0
  CSI065
                0
                                  0
                                                    0 0.00000e+00
##
                0
                                  0
                                           0
                                                    0 0.00000e+00
##
   CSI076
             Otu04447
                          Otu04448 Otu04449 Otu04450
##
                                                         0t.1104451
  CSI001 0.000000e+00 2.345326e-05
                                          0
                                                   0 4.690652e-05
  CSI012 0.000000e+00 1.724971e-05
                                          0
                                                   0 3.449941e-05
  CSI022 0.000000e+00 4.303111e-05
                                          0
                                                   0 0.00000e+00
  CSI044 0.000000e+00 0.000000e+00
                                          0
                                                   0 0.000000e+00
                                          0
  CSI055 1.075708e-04 2.151417e-05
                                                   0 0.00000e+00
  CSI065 0.000000e+00 0.000000e+00
                                          0
                                                   0 0.00000e+00
  CSI076 0.000000e+00 0.000000e+00
                                          0
                                                   0 0.000000e+00
                                            Otu04455 Otu04456 Otu04457
##
             0tu04452
                          Otu04453 Otu04454
  CSI001 0.000000e+00 0.0000000000
                                          0
                                                   0
                                                            0
                                                                     0
                                                            0
  CSI012 0.000000e+00 0.0000000000
                                          0
                                                   0
                                                                     0
  CSI022 0.000000e+00 0.0000000000
                                          0
                                                   0
                                                            0
                                                                     0
                                          0
                                                            0
                                                                     0
  CSI044 0.000000e+00 0.0000000000
                                                   0
  CSI055 0.000000e+00 0.0003011983
                                          0
                                                   0
                                                            0
                                                                     0
  CSI065 0.000000e+00 0.0000000000
                                          0
                                                   0
                                                            0
                                                                     0
  CSI076 2.890675e-05 0.0000000000
                                          0
                                                            0
                                                                     0
##
##
             Otu04458 Otu04459 Otu04460 Otu04461
                                                     Otu04462 Otu04463
## CSI001 0.000000e+00
                             0
                                      0
                                               0.0000000000
                                                                     0
## CSI012 1.724971e-05
                             0
                                      0
                                               0 0.000000000
                                                                     0
```

0

0

0

```
## CSI022 0.000000e+00
                                0
                                                   0 0.000000000
                                                                           0
   CSI044 0.000000e+00
                                          0
                                                     0.000000000
                                                                           0
                                0
                                                     0.0001936275
   CSI055 0.000000e+00
                                0
                                          0
                                                                           0
   CSI065 0.000000e+00
                                0
                                          0
                                                     0.000000000
                                                                           0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                   0 0.000000000
                                                                           0
                             Otu04465 Otu04466 Otu04467 Otu04468 Otu04469
##
               Otu04464
   CSI001 9.381303e-05 0.0000000000
                                              0
                                                        0
                                                                 0
                                                                           0
   CSI012 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI022 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
                                              0
                                                                 0
                                                                           0
   CSI044 0.000000e+00 0.0000000000
                                                       0
   CSI055 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI065 0.000000e+00 0.0003782005
                                              0
                                                       0
                                                                           0
   CSI076 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                 0
                                                                           0
          Otu04470 Otu04471
##
                                  Otu04472 Otu04473
                                                          Otu04474 Otu04475
## CSI001
                  0
                            0 2.345326e-05
                                                   0 0.000000e+00
                                                                           0
##
   CSI012
                  0
                            0 1.724971e-05
                                                     3.449941e-05
                                                                           0
                                                                           0
##
  CSI022
                  0
                            0 2.151556e-05
                                                   0 0.00000e+00
   CSI044
                  0
                              0.000000e+00
                                                     0.000000e+00
                                                                           0
  CSI055
                  0
                                                                           0
##
                            0
                             0.000000e+00
                                                     0.000000e+00
##
   CSI065
                  0
                              0.000000e+00
                                                     0.000000e+00
                                                                           0
##
   CST076
                  0
                            0
                              0.000000e+00
                                                   0
                                                     0.000000e+00
                                                                           0
          Otu04476 Otu04477
                                                     Otu04480 Otu04481
##
                                  Otu04478 Otu04479
## CSI001
                                                             0
                  0
                            0 4.690652e-05
                                                   0
                                                                       0
                                                             0
##
   CSI012
                  0
                            0 0.00000e+00
                                                   0
                                                                       0
##
  CSI022
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
   CSI044
                  0
                            Ω
                             0.000000e+00
                                                   0
                                                             0
                                                                       0
   CSI055
                  0
                                                   0
                                                             0
                                                                       0
##
                             0.000000e+00
                                                   0
                                                             0
##
   CSI065
                  0
                            0 0.00000e+00
                                                                       0
                                                   0
                                                             0
                                                                       Λ
##
   CSI076
                  0
                            0 0.00000e+00
##
               0tu04482
                             Otu04483 Otu04484 Otu04485 Otu04486
                                                                        0tu04487
##
   CSI001 0.000000e+00 1.641728e-04
                                              0
                                                       0
                                                                 0 0.00000e+00
   CSI012 0.000000e+00 3.449941e-05
                                              0
                                                       0
                                                                 0 0.000000e+00
   CSI022 6.454667e-05 0.000000e+00
                                              0
                                                       0
                                                                 0 0.00000e+00
                                              0
   CSI044 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                   0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0
##
                                                                 0 3.782005e-05
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                 0 0.00000e+00
##
               Otu04488 Otu04489 Otu04490
                                                Otu04491 Otu04492
                                                                        Otu04493
                                          0 2.345326e-05
   CSI001 0.000000e+00
                                0
                                                                 0 4.690652e-05
   CSI012 0.000000e+00
                                0
##
                                          0 0.00000e+00
                                                                 0.000000e+00
   CSI022 0.000000e+00
                                0
                                          0 4.303111e-05
                                                                 0 0.000000e+00
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0.000000e+00
   CSI055 4.517975e-04
                                0
                                          \cap
                                           0.000000e+00
                                                                 0 0.00000e+00
                                0
   CSI065 0.000000e+00
                                           0.000000e+00
                                                                 0 0.00000e+00
                                0
##
   CSI076 0.000000e+00
                                          0 0.00000e+00
                                                                 0 0.00000e+00
##
                        Otu04495 Otu04496
                                            Otu04497 Otu04498 Otu04499
          Otu04494
##
  CSI001
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
   CSI012
                  0 1.724971e-05
                                          0
                                                   0
                                                             0
                                                                       0
   CSI022
                  0 4.303111e-05
                                          0
                                                   0
                                                             0
                                                                       0
##
   CSI044
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                          0
                                                   0
                                                             0
                                                                       0
##
   CSI055
                  0.0.000000e+00
##
   CSI065
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
  CSI076
##
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
               Otu04500 Otu04501
                                      Otu04502 Otu04503 Otu04504 Otu04505
```

```
## CSI001 0.0000000000
                                0 2.345326e-05
                                                        0
                                                                  0
                                                                            0
   CSI012 0.0000000000
                                0 5.174912e-05
                                                                  0
                                                        0
                                                                            0
   CSI022 0.0000000000
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI044 0.0000000000
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI055 0.0000000000
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI065 0.0000000000
                                                        Λ
                                                                  0
##
                                0 0.00000e+00
                                                                            0
   CSI076 0.0000000000
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                       Otu04508 Otu04509
               Otu04506 Otu04507
                                                              Otu04510 Otu04511
##
   CSI001 0.0000000000
                                0 0.00000e+00
                                                        0 0.00000e+00
   CSI012 0.0000000000
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI022 0.0000000000
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI044 0.0000000000
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI055 0.0000000000
                                0 4.302833e-05
                                                        0 4.302833e-05
                                                                                0
   CSI065 0.0000000000
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI076 0.0001445337
                                0 8.672024e-05
                                                        0 0.000000e+00
                                                                                0
##
##
           Otu04512 Otu04513 Otu04514 Otu04515 Otu04516 Otu04517
                                                                         Otu04518
  CSI001
                                                                   0 0.000000e+00
##
                  0
                            0
                                     0
                                               0
                                                         0
##
   CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
  CSI022
                            0
                                               0
                                                         0
##
                  0
                                     0
                                                                   0 1.075778e-04
##
   CSI044
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
   CSI055
                  Λ
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
   CSI065
                            0
                                                         0
                                                                   0 0.000000e+00
                            0
                                                         0
##
  CSI076
                  0
                                               0
                                                                   0 0.000000e+00
               Otu04519 Otu04520
##
                                       Otu04521 Otu04522 Otu04523
                                                                        0tu04524
                                0 0.00000e+00
  CSI001 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI012 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.000000e+00
   CSI022 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI055 0.000000e+00
                                                        0
                                0 2.151417e-05
                                                                  0 2.151417e-05
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
##
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
##
           Otu04525
                         Otu04526 Otu04527 Otu04528 Otu04529
                                                                    Otu04530
##
  CSI001
                  0 0.000000e+00
                                          0
                                                    0
                                                             0 0.000000e+00
  CSI012
                  0 0.000000e+00
                                                    0
##
                                          0
                                                             0 0.00000e+00
   CSI022
                  0 0.000000e+00
                                          0
                                                    0
                                                               0.000000e+00
                                          0
                                                    0
##
   CSI044
                  0 0.00000e+00
                                                             0 0.00000e+00
##
   CSI055
                    0.000000e+00
                                          0
                                                    0
                                                               0.000000e+00
  CSI065
                    0.000000e+00
                                          0
                                                    0
                                                             0 0.000000e+00
##
                    0.000000e+00
                                          0
                                                    0
##
   CSI076
                                                             0 0.00000e+00
##
                    Otu04532 Otu04533 Otu04534 Otu04535 Otu04536 Otu04537
          0tu04531
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
  CSI022
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
                            0
                                               0
                                                         0
                                                                   0
                  0
                                      0
                                                                            0
##
   CSI044
                            0
                                                                   0
  CSI055
                  0
                                      0
                                               0
                                                         0
                                                                            0
## CSI065
                  0
                            0
                                      0
                                                         0
                                                                   0
                                                                            0
                                               0
##
   CSI076
                  0
                            0
                                      0
                                                         0
                                                                            0
##
          Otu04538 Otu04539
                              Otu04540
                                            Otu04541 Otu04542 Otu04543
## CSI001
                  0
                            0
                                      0 2.345326e-05
                                                             0
                                                                       0
##
  CSI012
                  0
                            0
                                       0.000000e+00
                                                             0
                                                                       0
                  0
                            0
                                                             0
                                                                       0
##
  CSI022
                                       0.000000e+00
## CSI044
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
## CSI055
                  0
                            0
                                     0 2.151417e-05
                                                             0
                                                                       0
## CSI065
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
```

```
## CSI076
                           0
                                     0 0.00000e+00
                                                             0
##
                                      Otu04546 Otu04547 Otu04548
                                                                        0t.1104549
               Ot1104544 Ot1104545
                                                                 0 0.000000e+00
## CSI001 0.000000e+00
                                0 4.690652e-05
                                                       0
  CSI012 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0 0.000000e+00
## CSI022 0.000000e+00
                                0 2.151556e-05
                                                       0
                                                                 0 0.000000e+00
## CSI044 0.00000e+00
                                0 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
   CSI055 1.290850e-04
                                0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
## CSI065 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0 3.782005e-05
   CSI076 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0 2.890675e-05
          Otu04550 Otu04551 Otu04552 Otu04553 Otu04554 Otu04555 Otu04556
##
## CSI001
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI012
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
                            0
                                     0
                                               0
                                                         0
##
  CSI076
                                                                  0
                                                                            0
##
               Otu04557 Otu04558 Otu04559
                                                Otu04560 Otu04561
                                                                       0tu04562
                                                                 0 0.00000e+00
## CSI001 0.000000e+00
                                0
                                         0 0.000000e+00
## CSI012 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                 0 0.00000e+00
## CSI022 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0 0.00000e+00
## CSI044 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                 0 0.00000e+00
## CSI055 0.000000e+00
                                0
                                         0 2.151417e-05
                                                                 0 6.45425e-05
## CSI065 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0 0.00000e+00
## CSI076 0.000000e+00
                                0
                                         0 5.781349e-05
                                                                 0.00000e+00
          Otu04563 Otu04564 Otu04565
                                           Otu04566 Otu04567 Otu04568 Otu04569
## CSI001
                           0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
                  0
                                                                                 0
## CSI012
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
## CSI044
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI055
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
  CSI065
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                0
##
   CSI076
                  0
                            0
                                     0 2.890675e-05
                                                             0
                                                                       0
                                                                                 0
          Otu04570
                                      Otu04572 Otu04573 Otu04574 Otu04575
##
                        Otu04571
  CSI001
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
  CSI012
                  0 0.000000e+00 1.724971e-05
                                                       0
                                                                 0
                                                                           0
##
## CSI022
                  0 0.000000e+00 2.151556e-05
                                                       0
                                                                 0
                                                                           0
## CSI044
                  0 0.000000e+00 3.943140e-05
                                                       Λ
                                                                 0
                                                                           0
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                 0
                                                                           0
##
  CST065
                  0 5.781349e-05 0.000000e+00
                                                                 0
   CST076
                                                        0
##
          Otu04576 Otu04577 Otu04578 Otu04579 Otu04580 Otu04581 Otu04582
##
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
                                               0
                                                         0
                                                                  0
## CSI012
                  0
                                     0
                                                                            0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
                                     0
                                               0
                                                         0
                                                                  0
##
  CSI065
                  0
                                                                            0
##
   CST076
                  0
                            0
                                               0
                                                         0
                                                                  0
                                                                            0
##
               Otu04583 Otu04584
                                      Otu04585 Otu04586
                                                             Otu04587
## CSI001 0.000000e+00
                                0 1.876261e-04
                                                       0.0.00000e+00
## CSI012 0.000000e+00
                                0 5.174912e-05
                                                       0 0.00000e+00
## CSI022 0.000000e+00
                                0 0.00000e+00
                                                       0.00000e+00
## CSI044 0.000000e+00
                                0 0.000000e+00
                                                       0 0.00000e+00
```

```
## CSI055 0.000000e+00
                               0 0.00000e+00
                                                       0 6.45425e-05
   CSI065 0.000000e+00
                               0 0.000000e+00
                                                       0 0.00000e+00
   CSI076 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
##
              Otu04588 Otu04589 Otu04590 Otu04591 Otu04592 Otu04593 Otu04594
   CSI001 1.172663e-04
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI012 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI022 0.000000e+00
                                                   0
                                                            0
                               0
                                         0
                                                                      0
                                                                               0
  CSI044 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI055 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                O
                               0
                                         0
                                                   0
                                                            0
                                                                               0
   CSI065 0.000000e+00
                                                                      Λ
   CSI076 5.781349e-05
                               0
                                         0
                                                   0
                                                            0
                                                                                0
                        Otu04596 Otu04597 Otu04598 Otu04599
##
          Otu04595
                                                                   Otu04600
##
   CSI001
                  0 0.000000e+00
                                         0
                                                   0
                                                            0 0.000000e+00
                                         0
                                                   0
##
   CSI012
                  0 1.724971e-05
                                                            0 0.00000e+00
  CSI022
                  0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
##
                                         0
   CSI044
                  0 0.00000e+00
                                         0
                                                   0
                                                            0 0.00000e+00
                                         0
                                                   0
##
   CSI055
                  0 0.00000e+00
                                                            0 0.00000e+00
   CSI065
                  0 0.000000e+00
                                         0
                                                   0
                                                            0 0.000000e+00
##
                                         0
##
   CST076
                  0
                   0.000000e+00
                                                   0
                                                            0 5.781349e-05
##
          Otu04601
                        Otu04602 Otu04603 Otu04604
                                                         Otu04605 Otu04606
##
  CSI001
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
  CSI012
                  0 0.000000e+00
                                         0
                                                   0 1.724971e-05
                                                                          0
## CSI022
                                                                          0
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                         0
##
   CSI044
                  0 0.00000e+00
                                                   0 0.00000e+00
                                                                          0
                                         0
                                                                          0
##
  CST055
                  0 0.00000e+00
                                                   0 0.00000e+00
   CSI065
                  0 0.000000e+00
                                         0
                                                    0.000000e+00
                                                                          0
   CSI076
                                         0
                                                                          0
##
                  0 8.672024e-05
                                                   0
                                                     0.000000e+00
                        Otu04608 Otu04609 Otu04610
##
          0tu04607
                                                         Otu04611 Otu04612
                                         0
##
   CSI001
                  0 0.00000e+00
                                                   0 7.035977e-05
                                                                          0
  CSI012
                  0 1.724971e-05
                                         0
                                                   0 1.724971e-05
                                                                          0
##
   CSI022
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
##
   CSI044
                  0 0.000000e+00
                                         0
                                                    0.000000e+00
                                                                          0
   CSI055
                  0 0.000000e+00
                                         0
                                                    0.000000e+00
                                                                          0
   CSI065
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
##
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
##
   CSI076
                            Otu04614 Otu04615 Otu04616 Otu04617 Otu04618
##
              Ot:1104613
   CSI001 0.0000000000 0.0000000000
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI012 0.0000000000 0.0000000000
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI022 0.0000000000 0.0000000000
                                             0
                                                                 0
                                                                          0
                                                       0
   CSI044 0.0000000000 0.0000000000
                                             0
                                                                 0
                                                                          0
                                                       Ω
   CSI055 0.0001505992 0.0000000000
                                             0
                                                                 0
                                                       0
                                                                          0
   CSI065 0.0000000000 0.0000000000
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI076 0.0000000000 0.0000000000
                                             0
                                                       0
                                                                          0
##
          Otu04619
                                      0tu04621
                                                    0tu04622
                        Otu04620
                                                                 0tu04623
  CSI001
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI012
                  0 3.277444e-04 0.000000e+00 1.724971e-05 5.174912e-05
##
   CSI022
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI044
                  0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055
                  0 0.000000e+00 4.302833e-05 0.000000e+00 0.000000e+00
##
   CSI065
                  0 0.000000e+00 7.564010e-05 0.000000e+00 0.000000e+00
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
##
          Otu04624 Otu04625 Otu04626 Otu04627
                                                     Otu04628 Otu04629 Otu04630
## CSI001
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
## CSI012
                  0
                           0
                                     0
                                              0 1.724971e-05
                                                                      0
                                                                               0
```

```
## CSI022
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
  CST044
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                 0
##
                                      0
  CSI055
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                                                                                 0
  CSI065
                  0
                            0
                                      0
                                                 0.000000e+00
                                                                        0
##
##
   CST076
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
          Otu04631
                         Otu04632 Otu04633 Otu04634
##
                                                          Otu04635
                                                                         Otu04636
                                                    0 0.000000000 0.000000000
  CSI001
                  0 0.00000e+00
                                          0
## CSI012
                                          0
                  0 0.00000e+00
                                                    0 0.000000000 0.000000000
##
   CSI022
                    0.000000e+00
                                          0
                                                      0.0004948578 0.0000000000
                                          0
##
   CSI044
                    0.000000e+00
                                                      0.000000000 0.000000000
   CSI055
                    0.000000e+00
                                          0
                                                      0.000000000 0.000000000
                                          0
   CSI065
                                                      0.000000000 0.0001134602
##
                    0.000000e+00
##
   CSI076
                    1.156270e-04
                                          0
                                                    0.0000000000 0.000000000
                  0
##
          0tu04637
                    Otu04638 Otu04639 Otu04640 Otu04641 Otu04642 Otu04643
##
  CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI022
                                      0
   CSI044
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
   CSI055
                  0
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
##
                                      0
##
   CSI065
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CST076
                  Λ
                            0
                                      Λ
                                                0
                                                         0
                                                                   0
                                                                             0
               Otu04644 Otu04645 Otu04646 Otu04647
                                                      Otu04648 Otu04649
                                                                         Otu04650
##
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI001 4.690652e-05
   CSI012 6.899883e-05
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
                                                                        0
                                                                                  0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
   CSI065 0.000000e+00
                                                                        0
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
   CSI076 0.000000e+00
                                                                        Λ
##
##
           Otu04651 Otu04652 Otu04653 Otu04654 Otu04655 Otu04656
                                                                          0tu04657
##
  CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
   CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.000000e+00
##
   CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
                  0
                            0
                                                0
                                                         0
##
  CSI044
                                      0
                                                                   0 0.00000e+00
   CSI055
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
   CSI065
                  0
                            0
                                                0
                                                         0
                                                                   0 0.000000e+00
##
                                      0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
          Otu04658
                    Otu04659
                                  Otu04660
                                                               0±1104662 0±1104663
                                                 Ot:1104661
  CSI001
                  0
                              0.000000e+00 2.345326e-05 0.000000e+00
##
                                                                                 0
  CSI012
                  0
                              0.000000e+00 0.000000e+00 0.000000e+00
                                                                                0
##
   CSI022
                              0.000000e+00 0.000000e+00 0.000000e+00
                  0
                                                                                0
  CSI044
                  0
                              0.000000e+00 0.000000e+00 0.000000e+00
                                                                                0
##
##
   CSI055
                  0
                              4.302833e-05 2.151417e-05 4.302833e-05
                                                                                 0
                  0
##
   CSI065
                              7.564010e-05 0.000000e+00 0.000000e+00
                                                                                0
                  0
##
   CSI076
                              0.000000e+00 0.000000e+00 2.890675e-05
                                                                                 0
          Otu04664 Otu04665
                                  Otu04666
                                                 Otu04667
##
                                                               Otu04668
##
  CSI001
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI012
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
                  0
##
   CSI022
                  0
                              0.000000e+00 0.000000e+00 4.303111e-05
##
   CSI044
                  0
                              0.000000e+00 0.000000e+00 0.000000e+00
   CSI055
                  0
                              2.151417e-05 0.000000e+00 0.000000e+00
##
##
  CSI065
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI076
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
               Otu04669 Otu04670 Otu04671 Otu04672 Otu04673 Otu04674
```

```
## CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
   CSI012 3.449941e-05
                                           0
                                                     0
                                                               0
                                 0
                                                                        0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
   CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
   CSI065 0.000000e+00
                                 0
                                                     0
                                                               0
                                                                        0
##
                                           0
                                                               0
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                                        0
##
               Otu04675 Otu04676
                                      Otu04677 Otu04678 Otu04679 Otu04680
   CSI001 0.000000e+00
                                 0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                        0
                                                                            0
   CSI012 0.000000e+00
                                 0 0.00000e+00
                                                                  0
   CSI022 2.151556e-05
                                 0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                        0
                                                                  0
                                                                            0
   CSI044 0.000000e+00
                                 0 0.00000e+00
   CSI055 0.000000e+00
                                 0 6.45425e-05
                                                        0
                                                                  0
                                                                            0
                                                                            0
   CSI065 0.000000e+00
                                 0 0.00000e+00
                                                        0
                                                                  0
   CSI076 0.000000e+00
                                 0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
##
##
           Otu04681 Otu04682 Otu04683
                                             Otu04684 Otu04685 Otu04686
                                                                          Otu04687
## CSI001
                            0
                  0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI012
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                        0
                                                                                  0
   CSI022
                            0
                                      0 0.000000e+00
                                                              0
                                                                                  0
##
                  0
                                                                        0
##
   CSI044
                  0
                            0
                                        0.00000e+00
                                                               0
                                                                        0
                                                                                  0
##
   CSI055
                  0
                            0
                                        8.605667e-05
                                                               0
                                                                        0
                                                                                  0
   CSI065
                            0
                                      0 0.000000e+00
                                                               0
                                                                                  0
##
                            0
                                                               Λ
##
   CSI076
                  0
                                      0 0.000000e+00
                                                                        0
                                                                                  0
               Otu04688 Otu04689 Otu04690 Otu04691 Otu04692
##
                                                                     0tu04693
##
   CSI001 2.345326e-05
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0.000000e+00
                                           0
                                                     0
   CSI044 0.000000e+00
                                 0
                                                                0.000000e+00
                                           0
   CSI055 0.000000e+00
                                 0
                                                     0
                                                               0 0.000000e+00
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
##
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
##
           Otu04694 Otu04695 Otu04696
                                             Otu04697 Otu04698
                                                                Otu04699 Otu04700
## CSI001
                  0
                            0
                                      0 2.345326e-05
                                                               0
                                                                        0
                                                                                  0
  CSI012
                                      0 5.174912e-05
                                                              0
                                                                                  0
##
                  0
                            0
                                                                        0
   CSI022
                  0
                            0
                                        0.000000e+00
                                                               0
                                                                        0
                                                                                  0
                            0
                                        0.000000e+00
                                                               0
                                                                                  0
##
   CSI044
                  0
                                                                        0
##
   CSI055
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                        0
                                                                                  0
##
  CSI065
                  0
                            0
                                      0 0.000000e+00
                                                               Λ
                                                                        0
                                                                                  O
                  0
                                      0 0.000000e+00
                                                               0
                                                                        0
                                                                                  0
##
   CSI076
                            0
##
           Otu04701
                         Otu04702 Otu04703 Otu04704 Otu04705
                                                                Otu04706 Otu04707
  CSI001
                  0 0.000000e+00
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
  CSI012
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                  0
##
##
   CSI022
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                  0
                                           0
                                                     0
                                                               0
                                                                                  0
   CSI044
                    0.000000e+00
                                                                        Λ
##
                                           0
                                                               0
   CSI055
                  0 0.000000e+00
                                                     0
                                                                                  0
## CSI065
                    0.000000e+00
                                           0
                                                     0
                                                                        0
                                                                                  0
                                                               0
##
   CSI076
                  0 0.00000e+00
                                                     0
                                                               0
                                                                                  0
##
           Otu04708 Otu04709 Otu04710
                                             Otu04711
                                                           0tu04712
                                                                          0tu04713
## CSI001
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI012
                  0
                            0
                                        0.000000e+00 1.724971e-05 1.724971e-05
                  0
                            0
                                        0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI022
## CSI044
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI055
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI065
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
```

```
## CSI076
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
               Otu04714 Otu04715 Otu04716 Otu04717 Otu04718 Otu04719 Otu04720
## CSI001 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
                                                                                 0
  CSI012 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 O
                                                                       0
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
## CSI065 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI076 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 O
##
          Otu04721
                        Otu04722 Otu04723 Otu04724
                                                      Otu04725
                                                               Otu04726
                                                                         Otu04727
## CSI001
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI012
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                  0 1.724971e-05
## CSI022
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI044
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI055
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI065
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
   CSI076
                                                                                 0
##
           Otu04728 Otu04729 Otu04730 Otu04731 Otu04732 Otu04733 Otu04734
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI044
                  0
                            0
                                                                            0
## CSI055
                                                         0
                  0
                            0
                                     0
                                               0
                                                                   0
                                                                            0
  CSI065
##
                  0
                            0
                                      0
                                               0
                                                         0
                                                                            0
##
  CSI076
                  \cap
                            0
                                     0
                                               0
                                                                   0
                                                                            0
##
          Otu04735
                        Otu04736 Otu04737 Otu04738
                                                          Otu04739 Otu04740
## CSI001
                                          0
                                                   0 0.00000e+00
                  0 0.000000e+00
                                                                           0
                                          0
##
   CSI012
                  0 1.724971e-05
                                                   0 0.00000e+00
                                                                           0
  CSI022
                  0 0.000000e+00
                                          0
                                                   0 0.000000e+00
                                                                           0
##
   CSI044
                  0 0.000000e+00
                                          0
                                                   0 0.00000e+00
                                                                           0
##
   CSI055
                  0 0.00000e+00
                                          0
                                                   0 0.00000e+00
                                                                           0
##
   CSI065
                  0 0.000000e+00
                                          0
                                                   0 0.00000e+00
                                                                           0
##
   CSI076
                  0
                    0.000000e+00
                                          0
                                                   0 0.00000e+00
                                                                           0
          Otu04741
##
                        Otu04742 Otu04743
                                                Otu04744
                                                              Otu04745 Otu04746
   CSI001
                  0 0.00000e+00
                                          0 2.345326e-05 0.000000e+00
##
   CSI012
                                          0 1.724971e-05 0.000000e+00
##
                  0 0.00000e+00
                                                                                0
  CSI022
                  0 0.00000e+00
                                          0 2.151556e-05 0.000000e+00
  CSI044
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
                                                                                0
                  0 0.000000e+00
                                          0 0.000000e+00 2.151417e-05
   CSI055
                                          0 0.000000e+00 0.000000e+00
##
  CSI065
                  0 0.000000e+00
                                                                                0
   CST076
                  0 0.000000e+00
                                          0 2.890675e-05 8.672024e-05
##
               Otu04747
                             Otu04748 Otu04749 Otu04750
                                                              0 \pm 1104751 0 \pm 1104752
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
                                              0
   CSI012 0.000000e+00 5.174912e-05
                                                        0 3.449941e-05
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI065 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
   CSI076 8.672024e-05 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
##
               Otu04753 Otu04754 Otu04755 Otu04756
                                                          Otu04757 Otu04758
  CSI001 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00
                                                                           0
                                0
                                          0
## CSI012 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
                                                   0 0.000000e+00
## CSI022 0.000000e+00
                                0
                                          0
                                                                           0
## CSI044 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
```

```
## CSI055 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI065 0.000000e+00
                                                     0.000000e+00
                                0
                                         0
                                                                           0
                                                    0.000000e+00
   CSI076 0.000000e+00
                                0
                                         0
                                                                           0
##
               Otu04759 Otu04760 Otu04761 Otu04762
                                                     Otu04763
                                                                   Ot.1104764
##
   CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                            0 4.690652e-05
                                                   0
   CSI012 0.000000e+00
                                0
                                         0
                                                            0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
  CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                             0.000000e+00
   CSI055 2.151417e-05
                                0
                                         0
                                                   0
                                                            0 0.000000e+00
                                         0
                                                   0
   CSI065 0.000000e+00
                                0
                                                             0 0.00000e+00
   CSI076 2.890675e-05
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
               Otu04765 Otu04766 Otu04767
##
                                                Otu04768
                                                              Otu04769 Otu04770
##
   CSI001 0.0000000000
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
                                0
   CSI012 0.0000000000
                                         0 0.000000e+00 1.724971e-05
                                                                               0
   CSI022 0.0000000000
                                         0 0.000000e+00 0.000000e+00
                                                                               0
                                0
   CSI044 0.0000000000
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI055 0.0000000000
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI065 0.0000000000
                                         0 0.000000e+00 0.000000e+00
                                0
##
   CST076 0.00000000000
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
          Otu04771 Otu04772 Otu04773 Otu04774 Otu04775 Otu04776 Otu04777
##
  CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI022
                                                                  0
                  0
                           0
                                     0
                                               0
                                                        0
                                                                           0
##
  CSI044
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                                                                  0
##
  CST055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                           0
   CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                               0
                                                        0
                                                                  0
                                                                           0
##
   CSI076
                                     Λ
##
               Otu04778 Otu04779
                                      Otu04780
                                                    Otu04781 Otu04782
                                0 0.000000e+00 4.690652e-05
##
   CSI001 0.000000e+00
                                                                     0
   CSI012 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI022 0.000000e+00
                                0 2.151556e-05 0.000000e+00
                                                                     0
   CSI044 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI055 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
##
   CSI065 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI076 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
##
                            Otu04784 Otu04785
##
               Ot:1104783
                                                    Otu04786 Otu04787
   CSI001 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                     0
  CSI012 3.449941e-05 0.0000000000
                                             0 0.000000e+00
                                                                     0
   CSI022 0.000000e+00 0.0000000000
                                             0.000000e+00
                                                                     0
   CSI044 0.000000e+00 0.0000000000
                                                                     0
                                             0.000000e+00
   CSI055 0.000000e+00 0.0000000000
                                                                     0
                                             0 2.151417e-05
   CSI065 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                     0
##
   CSI076 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                     0
               Otu04788 Otu04789 Otu04790 Otu04791
##
                                                         Otu04792 Otu04793
   CSI001 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI012 0.000000e+00
                                         0
                                                                           0
                                0
                                                   0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                         0
                                                   0 2.151556e-05
                                                                           0
                                         0
                                                                           0
   CSI044 0.000000e+00
                                0
                                                   0 0.00000e+00
   CSI055 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI065 0.000000e+00
                                0
                                         0
                                                     7.564010e-05
                                                                           0
##
   CSI076 0.000000e+00
                                         0
                                                   0 0.000000e+00
##
                                0
                                                                           0
##
          Otu04794 Otu04795
                                  Otu04796
                                                0tu04797
                                                              Otu04798
                           0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI001
                  0
## CSI012
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
```

```
## CSI022
                            0 2.151556e-05 0.000000e+00 0.000000e+00
  CST044
                  0
                              0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI055
                  0
                              0.000000e+00 0.000000e+00 0.000000e+00
                              0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
                  n
##
##
   CST076
                            0 0.000000e+00 0.000000e+00 0.000000e+00
               Otu04799 Otu04800
                                       Otu04801 Otu04802
##
                                                               Ot.1104803
                                0 0.00000e+00
   CSI001 0.0004925184
                                                        0 4.690652e-05
  CSI012 0.0000000000
                                0 0.00000e+00
                                                        0 5.174912e-05
   CSI022 0.0000000000
                                0 0.00000e+00
                                                        0 0.00000e+00
   CSI044 0.0000000000
                                0 0.000000e+00
                                                        0 0.00000e+00
   CSI055 0.0000000000
                                0 0.00000e+00
                                                         0 0.00000e+00
   CSI065 0.0000000000
                                0 0.000000e+00
                                                        0 0.000000e+00
##
   CSI076 0.0000000000
                                0 0.000000e+00
                                                        0 0.000000e+00
##
               Otu04804 Otu04805 Otu04806
                                                 Otu04807 Otu04808 Otu04809
   CSI001 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
   CSI012 0.000000e+00
                                0
                                          0 3.449941e-05
                                                                  0
                                                                            0
   CSI022 0.000000e+00
                                0
                                                                  0
                                                                            0
                                          0 4.303111e-05
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI055 2.151417e-05
                                0
                                                                  0
                                                                            0
                                          0 0.00000e+00
   CSI065 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
   CSI076 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
           Otu04810 Otu04811 Otu04812 Otu04813 Otu04814 Otu04815
## CSI001
                            0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                                      0
  CSI012
                            0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                                      0
                                                                    0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                             0
  CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
                            0
                                                0
                                                                    0
                                                                             0
##
   CSI065
                  0
                                      0
                                                          0
                            0
                                                                    0
                                                                             0
   CSI076
                  0
                                      0
                                                0
                                                          0
##
##
           Otu04817
                    Otu04818
                              Otu04819 Otu04820
                                                      Otu04821 Otu04822 Otu04823
## CSI001
                  0
                            0
                                      0
                                                  0.000000e+00
                                                                        0
                                                                                  0
##
   CSI012
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
   CSI022
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                  0
                            0
                                                                                  0
##
   CSI044
                                      0
                                                0 0.00000e+00
                                                                        0
   CSI055
                  0
                            0
                                      0
                                                  2.151417e-05
                                                                        0
                                                                                  0
##
  CSI065
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
                                      0
##
   CSI076
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
           Otu04824 Otu04825
                                   Otu04826 Otu04827 Otu04828 Otu04829
                                                                          Otu04830
## CSI001
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
  CSI012
                  Λ
                                                    0
                                                              0
                                                                        0
##
                            0
                              0.000000e+00
   CSI022
                                                    0
                                                              0
                                                                        0
                                                                                  0
                  0
                              0.000000e+00
  CSI044
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                            0
                                                                                  0
##
   CSI055
                  0
                              0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI065
                  Λ
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
##
   CSI076
                            0 3.179742e-04
                             Otu04832 Otu04833 Otu04834 Otu04835 Otu04836
##
               Otu04831
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI012 1.724971e-05 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI022 2.151556e-05 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI044 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI055 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
                                               0
   CSI065 0.000000e+00 0.000000e+00
                                                         0
                                                                  0
                                                                            0
##
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
##
           Otu04837
                         0tu04838
                                       Otu04839
                                                     Otu04840
                                                                    0tu04841
```

```
## CSI001
                  0 0.000000e+00 0.0000000000 4.456119e-04 0.000000e+00
  CST012
                  0 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
##
   CSI022
                  0 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
   CSI044
                  0 0.000000e+00 0.000000000 0.000000e+00 1.774413e-04
##
##
   CSI055
                  0 0.000000e+00 0.0002151417 0.000000e+00 0.000000e+00
                  0 0.000000e+00 0.000000000 0.000000e+00 0.000000e+00
   CSI065
##
                  0 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00
##
   CSI076
              Otu04842 Otu04843 Otu04844
##
                                               Otu04845
                                                             Otu04846 Otu04847
##
   CSI001 0.000000e+00
                               0
                                         0 0.000000e+00 0.0000000000
                                                                              0
                               0
   CSI012 0.000000e+00
                                         0 0.000000e+00 0.0000000000
                                                                              0
   CSI022 0.000000e+00
                               0
                                         0 0.000000e+00 0.0000000000
                                                                              0
                               0
                                         0 0.000000e+00 0.0000000000
   CSI044 0.000000e+00
                                                                              0
   CSI055 2.151417e-05
                               0
                                         0 0.000000e+00 0.0000000000
                                                                              0
                               0
                                         0 0.000000e+00 0.0000000000
   CSI065 0.000000e+00
                                                                              0
   CSI076 0.000000e+00
                               0
                                         0 0.000000e+00 0.0000000000
                                                                              0
##
##
          Otu04848
                        Otu04849 Otu04850 Otu04851
                                                         Otu04852
                                                                       Otu04853
  CSI001
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
                  0 0.00000e+00
   CSI012
                  0 0.000000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
  CSI022
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
                  0.000000e+00
##
   CSI044
                  0 0.000000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
   CSI055
                  0 0.000000e+00
                                         0
                                                    0.000000e+00 0.000000e+00
                  0 0.000000e+00
                                         0
                                                    0.000000e+00 0.000000e+00
##
   CST065
                                         0
                                                  0 0.000000e+00 5.781349e-05
##
  CSI076
                  0 0.000000e+00
##
              Otu04854 Otu04855 Otu04856 Otu04857
                                                         Otu04858 Otu04859
##
  CSI001 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI012 0.000000e+00
                               0
                                         0
                                                  0 1.724971e-05
                                                                          0
   CSI022 0.000000e+00
                               0
                                         0
                                                    2.151556e-05
                                                                          0
                                                  0
   CSI044 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI055 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00
                                                                          0
   CSI065 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
##
   CSI076 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
##
              Otu04860 Otu04861 Otu04862
                                               Otu04863 Otu04864 Otu04865
##
   CSI001 0.000000e+00
                               0
                                         0 9.381303e-05
                                                                0
                                                                          0
   CSI012 5.174912e-05
                                                                0
                                                                          0
                               0
                                         0 1.724971e-04
   CSI022 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
   CSI044 0.000000e+00
                               0
                                                                0
                                                                          0
                                         0 0.00000e+00
   CSI055 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
  CSI065 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          Λ
##
   CSI076 0.000000e+00
                               0
                                                                0
                                                                          0
##
                                         0.000000e+00
##
          Otu04866 Otu04867 Otu04868 Otu04869 Otu04870
                                                              Otu04871 Otu04872
## CSI001
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
## CSI012
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                  0
##
  CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                           0
                                                                               0
                  0
                                     0
                                              0
                                                        0 0.00000e+00
##
   CSI044
                           0
  CSI055
                  0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
## CSI065
                           0
                                     0
                                              0
                                                                               0
                  0
                                                        0 0.00000e+00
##
  CSI076
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
              Otu04873 Otu04874 Otu04875 Otu04876
                                                         Otu04877 Otu04878
  CSI001 0.0000000000
                               0
                                         0
                                                  0 4.690652e-05
                                                                          0
   CSI012 0.0002414959
                               0
                                         0
                                                  0 6.899883e-05
                                                                          0
                               0
                                         0
                                                                          0
##
   CSI022 0.0000000000
                                                    0.000000e+00
  CSI044 0.0000000000
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
                                                  0 0.000000e+00
## CSI055 0.0000000000
                               0
                                         0
                                                                          0
## CSI065 0.0000000000
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
```

```
## CSI076 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
##
          Otu04879 Otu04880 Otu04881 Otu04882 Otu04883
                                                               Otu04884 Otu04885
## CSI001
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0 3.449941e-05
                                                                                0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
## CSI044
                            0
## CSI055
                  0
                                     0
                                               0
                                                         0 3.657408e-04
                                                         0 0.00000e+00
## CSI065
                  0
                            0
                                     0
                                               0
                                                                                0
##
  CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 O
                                 Otu04888 Otu04889 Otu04890 Otu04891 Otu04892
##
          Otu04886 Otu04887
## CSI001
                  0
                            0.000000000
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI012
                  0
                            0 0.000000000
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI022
                  0
                            0 0.000000000
                                                  0
                                                            0
                                                                      0
                                                                               0
                                                  0
## CSI044
                  0
                            0 0.00000000
                                                            0
                                                                      0
                                                                               0
## CSI055
                  0
                            0.000000000
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI065
                  0
                            0.000000000
                                                  0
                                                            0
                                                                      0
                  0
                                                  0
                                                            0
                                                                      0
##
  CSI076
                            0 0.000000000
                                                                               0
##
          Otu04893
                        Otu04894 Otu04895 Otu04896 Otu04897
                                                                    Otu04898
## CSI001
                  0 4.690652e-05
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI012
                  0 0.00000e+00
                                          0
                                                   0
                                                             0 0.000000e+00
## CSI022
                  0 4.303111e-05
                                         0
                                                   Λ
                                                             0 0.000000e+00
## CSI044
                  0 0.000000e+00
                                          0
                                                   0
                                                             0 0.000000e+00
## CSI055
                                         0
                                                   0
                  0 0.00000e+00
                                                             0 6.454250e-05
                                          0
                                                   0
  CSI065
                  0 0.00000e+00
                                                             0 0.000000e+00
##
  CSI076
                  0 0.000000e+00
                                          0
                                                   0
                                                             0 0.00000e+00
          Otu04899
                    Otu04900 Otu04901
                                            Otu04902 Otu04903
                                                               Otu04904
## CSI001
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                       0
## CSI012
                  0
                            0
                                     0 0.00000e+00
                                                             0
## CSI022
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
## CSI044
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
## CSI055
                  0
                            0
                                     0 2.151417e-05
                                                             0
                                                                       0
##
  CSI065
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
##
   CSI076
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
               Otu04905 Otu04906 Otu04907 Otu04908 Otu04909
##
                                                               Otu04910
   CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
  CSI012 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
  CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                             Λ
                                                                       0
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI065 0.000000e+00
                                0
                                          0
                                                   0
                                                             Λ
                                                                       0
                                          0
                                                             0
   CSI076 8.672024e-05
##
               Otu04911 Otu04912
                                      Otu04913 Otu04914 Otu04915
                                                                        0t_{11}04916
  CSI001 0.000000e+00
                                0 2.345326e-05
                                                        0
                                                                 0 3.283456e-04
  CSI012 6.899883e-05
                                0 5.174912e-05
                                                        0
                                                                 0 1.724971e-05
   CSI022 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                 0 0.00000e+00
  CSI044 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                 0 0.00000e+00
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                 0 0.00000e+00
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                 0 0.00000e+00
   CST076 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                 0 0.000000e+00
##
          Otu04917 Otu04918 Otu04919 Otu04920 Otu04921
                                                               Otu04922 Otu04923
                                                         0 0.000000e+00
## CSI001
                                                                                0
                  0
                            0
                                     0
                                               0
                            0
## CSI012
                  0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0 4.303111e-05
                                                                                0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
```

```
## CSI055
                  0
                            0
                                     0
                                                         0 0.00000e+00
                                                                                 0
## CSI065
                            0
                                               0
                                                         0 0.000000e+00
                                                                                 0
                  0
                                     0
##
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
               Otu04924 Otu04925 Otu04926 Otu04927
                                                          Otu04928 Otu04929
   CSI001 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                           0
  CSI012 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                           0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                           0
  CSI044 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                           0
   CSI055 0.000000e+00
                                0
                                          0
                                                     0.000000e+00
                                                                           0
                                0
                                          0
                                                                           0
   CSI065 0.000000e+00
                                                     0.000000e+00
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                     0.000000e+00
                                                                           0
               Otu04930 Otu04931 Otu04932 Otu04933
##
                                                          Otu04934
                                                                        Otu04935
##
   CSI001 0.000000e+00
                                0
                                          0
                                                    0 2.345326e-05 0.000000e+00
                                0
                                          0
   CSI012 1.724971e-05
                                                    0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                                0
                                          0
                                                    0 2.151556e-05 0.000000e+00
   CSI044 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                          0
                                                      0.000000e+00 0.000000e+00
                                                     0.000000e+00 2.890675e-05
                                0
##
   CST076 0.000000e+00
                                          0
                                                    0
##
           Otu04936 Otu04937 Otu04938
                                            Otu04939
                                                          Otu04940 Otu04941
##
  CSI001
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI012
                  0
                            0
                                      0 3.449941e-05 0.000000e+00
                                                                           0
                                     0 0.000000e+00 0.000000e+00
## CSI022
                            0
                                                                           0
                  0
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
  CSI044
                                                                           0
                  0
                            0
                                                                           0
##
  CST055
                                     0 0.000000e+00 0.000000e+00
   CSI065
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
   CSI076
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
          Otu04942 Otu04943
                             Otu04944 Otu04945 Otu04946
##
                                                               Otu04947 Otu04948
##
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
  CSI012
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
##
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
   CST044
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
##
   CSI055
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI065
                  0
                            0
                                               0
                                                                                 0
##
                                     0
                                                         0 0.00000e+00
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
   CSI076
          Otu04949 Otu04950 Otu04951 Otu04952
##
                                                      Ot:1104953
                                                                   Ot:1104954
## CSI001
                  0
                            0
                                     0
                                               0 0.000000e+00 0.00000e+00
## CSI012
                  0
                            0
                                     0
                                               0 1.724971e-05 0.00000e+00
## CSI022
                  0
                            0
                                     0
                                               0 0.000000e+00 0.00000e+00
                  0
                            0
                                     0
                                               0 0.000000e+00 1.97157e-05
##
  CST044
                  0
                            0
                                     0
   CSI055
                                               0 0.000000e+00 0.00000e+00
  CSI065
                  0
                            0
                                     0
                                               0 0.000000e+00 0.00000e+00
##
                            0
##
   CST076
                  0
                                     0
                                               0 0.000000e+00 0.00000e+00
                    Otu04956 Otu04957 Otu04958
##
          Otu04955
                                                      Otu04959
                                                                    Otu04960
  CSI001
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
## CSI012
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
##
  CSI022
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
                  0
                            0
                                     0
  CSI044
                                               0 0.000000e+00 0.000000e+00
##
  CSI055
                  0
                            0
                                     0
                                               0 0.000000e+00 3.011983e-04
##
   CSI065
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
                  0
                            0
                                     0
                                               0 4.336012e-04 0.000000e+00
##
   CST076
##
          Otu04961 Otu04962 Otu04963
                                            Otu04964 Otu04965 Otu04966 Otu04967
## CSI001
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI012
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
```

```
## CSI022
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                  0
  CSI044
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
##
  CSI055
                                      0 0.000000e+00
##
                  0
                            0
                                                              0
                                                                       0
                                                                                  0
  CSI065
                                                              0
                                                                                 0
                  0
                            0
                                        3.782005e-05
                                                                       0
##
                                      0 0.000000e+00
##
   CST076
                  0
                            0
                                                              0
                                                                       0
                                                                                  0
          Otu04968 Otu04969
                                                Otu04971 Otu04972
##
                                 Otu04970
                                                                       Otu04973
                            0 0.000000000 0.000000e+00
                                                                 0 0.000000e+00
## CSI001
                  0
## CSI012
                  0
                            0
                              0.000000000 3.449941e-05
                                                                 0 0.00000e+00
##
   CSI022
                  0
                              0.00000000 0.000000e+00
                                                                   0.000000e+00
##
  CSI044
                  0
                              0.00000000 0.000000e+00
                                                                   0.00000e+00
   CSI055
                  0
                              0.00000000 0.000000e+00
                                                                   0.000000e+00
                  0
                              0.00000000 0.000000e+00
##
   CSI065
                                                                   0.000000e+00
##
   CSI076
                  0
                            0 0.000115627 0.000000e+00
                                                                 0 0.000000e+00
          Otu04974
                              Otu04976 Otu04977 Otu04978 Otu04979
##
                    Otu04975
                                                                          Otu04980
##
  CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.000000e+00
##
   CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
                  0
                            0
                                                         0
##
   CSI022
                                      0
                                                0
                                                                   0 0.00000e+00
   CSI044
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
   CSI055
                  0
                            0
                                                0
                                                         0
##
                                      0
                                                                   0.000000e+00
##
   CSI065
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
   CST076
                  0
                            0
                                      Λ
                                                0
                                                         0
                                                                   0 0.000000e+00
##
               Otu04981 Otu04982 Otu04983
                                                 Otu04984 Otu04985 Otu04986
  CSI001 0.000000e+00
                                0
                                                                  0
##
                                          0.000000e+00
                                                                            0
   CSI012 0.000000e+00
                                0
                                                                  0
                                          0 6.899883e-05
                                                                            0
                                                                  0
                                                                            0
   CSI022 0.000000e+00
                                0
                                          0 0.00000e+00
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI055 0.000000e+00
                                0
                                            0.000000e+00
                                                                  0
                                                                            0
                                          0
                                0
                                                                  0
   CSI065 0.000000e+00
                                          0 0.00000e+00
                                                                            0
                                0
                                                                  0
   CSI076 5.781349e-05
                                          0 0.000000e+00
                                                                            0
##
##
           Otu04987 Otu04988 Otu04989
                                            Otu04990 Otu04991 Otu04992
## CSI001
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
##
   CSI012
                  0
                            0
                                      0 5.174912e-05
                                                              0
                                                                       0
##
   CSI022
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                  0
                            0
                                                              0
##
   CSI044
                                        0.000000e+00
                                                                       0
   CSI055
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
##
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
##
   CSI065
                  0
##
   CSI076
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
##
               Otu04993 Otu04994 Otu04995 Otu04996
                                                      Otu04997
                                                                Otu04998
   CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
##
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI065 0.000000e+00
                                0
   CSI076 0.000000e+00
                                          0
                                                    0
                                                              0
               Otu04999 Otu05000 Otu05001
##
                                                 Otu05002
                                                              Otu05003
   CSI001 0.000000e+00
                                0
                                          0 0.000000e+00 0.00000e+00
                                0
   CSI012 0.000000e+00
                                          0 0.000000e+00 0.00000e+00
   CSI022 0.000000e+00
                                0
                                            0.000000e+00 0.00000e+00
   CSI044 0.000000e+00
                                0
                                            0.000000e+00 1.97157e-05
   CSI055 0.000000e+00
                                0
                                            2.151417e-05 0.00000e+00
   CSI065 0.000000e+00
                                0
                                          0 0.000000e+00 0.00000e+00
##
   CSI076 0.000000e+00
                                0
                                          0 0.000000e+00 0.00000e+00
##
               Otu05004
                             Otu05005
                                           Otu05006
                                                         Otu05007
                                                                       Otu05008
```

```
## CSI001 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00 0.000000e+00 1.724971e-05 3.449941e-05 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 4.302833e-05 0.000000e+00 0.000000e+00 0.000000e+00 2.151417e-05
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 5.781349e-05
           Otu05009 Otu05010 Otu05011 Otu05012 Otu05013
                                                                Otu05014 Otu05015
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                 O
   CSI012
                                                0
                                                                                 0
##
                  0
                            0
                                      0
                                                         0 0.00000e+00
  CSI022
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
  CSI044
                  0
                            0
                                      0
                                                0
                                                                                 0
##
                                                         0 0.00000e+00
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                 0
                            0
##
   CSI065
                  0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                 0
##
##
           Otu05016
                    Otu05017
                                  Otu05018 Otu05019 Otu05020 Otu05021 Otu05022
## CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
   CSI012
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                 0
  CSI022
                  0
                              2.151556e-05
                                                              0
                                                                                 0
##
                            0
                                                    0
                                                                       0
##
  CSI044
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
  CSI055
                  0
                              0.000000e+00
                                                    0
                                                              Λ
                                                                       0
                                                                                 0
   CSI065
                              0.000000e+00
                                                    0
                                                              0
                                                                                 0
##
                                                    0
                                                              0
                                                                                 0
##
  CSI076
                  0
                            0 0.00000e+00
                                                                        0
                              Otu05025 Otu05026 Otu05027 Otu05028
##
           0tu05023
                    Otu05024
                                                                     Otu05029
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
                            0
##
   CSI044
                  0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
   CSI055
                  0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
##
  CSI065
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
          Otu05030 Otu05031
                                  Otu05032 Otu05033
                                                          Otu05034 Otu05035
## CSI001
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                            0
  CSI012
                            0 0.000000e+00
                                                                            0
##
                  0
                                                    0 0.00000e+00
   CSI022
                  0
                              0.000000e+00
                                                    0 0.00000e+00
                                                                            0
                                                    0 0.00000e+00
##
  CSI044
                  0
                            0 9.857850e-05
                                                                            0
##
  CSI055
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
## CSI065
                  0
                            0 3.782005e-05
                                                    0 0.00000e+00
                                                                            0
                  0
                            0 0.000000e+00
                                                    0 8.672024e-05
##
   CSI076
                                                                            0
##
           Otu05036
                         Otu05037 Otu05038
                                                Otu05039 Otu05040 Otu05041
  CSI001
                  0 1.172663e-04
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CSI012
                  0 0.00000e+00
                                          0 5.174912e-05
                                                                  0
                                                                            0
##
   CSI022
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                                                  0
##
   CSI044
                    0.000000e+00
                                          0 0.000000e+00
                                                                            Λ
   CSI055
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
## CSI065
                    0.000000e+00
                                                                  0
                                                                            0
                  0
                                          0 0.00000e+00
##
   CSI076
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
           Otu05042 Otu05043 Otu05044
                                            Otu05045 Otu05046 Otu05047 Otu05048
                                      0 0.000000e+00
## CSI001
                  0
                            0
                                                              0
                                                                       0
                                                                                 0
##
  CSI012
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
##
  CSI022
## CSI044
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
## CSI055
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
## CSI065
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
```

```
0 0 2.890675e-05
## CSI076
                                                           0
##
                           Otii05050 Otii05051 Otii05052 Otii05053
              Ot:1105049
                                                                     Ot:1105054
                                                               0 1.876261e-04
## CSI001 0.000000e+00 1.172663e-04
                                            0
                                                      0
  CSI012 0.000000e+00 5.174912e-05
                                            0
                                                      0
                                                               0 1.724971e-05
  CSI022 2.151556e-05 0.000000e+00
                                            0
                                                      0
                                                               0 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 0.00000e+00
  CSI055 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 0.00000e+00
## CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0.000000e+00
  CSI076 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 5.781349e-05
##
          Otu05055
                       Otu05056 Otu05057
                                              Otu05058 Otu05059 Otu05060
## CSI001
                 0 0.00000e+00
                                        0 0.00000e+00
                                                               0
                                                                         0
## CSI012
                                                               0
                                                                         0
                 0 0.00000e+00
                                        0 0.00000e+00
## CSI022
                 0 4.303111e-05
                                        0 0.000000e+00
                                                               0
                                                                         0
## CSI044
                 0 0.00000e+00
                                        0 0.00000e+00
                                                               0
                                                                         0
## CSI055
                                                               0
                 0.0.000000e+00
                                        0 0.00000e+00
                                                                         0
## CSI065
                 0 0.00000e+00
                                        0 0.00000e+00
                                                               0
                                                                         0
                                                               0
##
  CSI076
                 0 0.00000e+00
                                        0 5.781349e-05
                                                                         0
          Otu05061
                       Otu05062 Otu05063 Otu05064
                                                        Otu05065 Otu05066
##
                 0 2.345326e-05
## CST001
                                        0
                                                 0 0.000000000
                                                                         0
## CSI012
                 0 0.00000e+00
                                        0
                                                  0 0.000000000
                                                                         0
##
  CSI022
                 0 0.000000e+00
                                        0
                                                 0 0.000000000
                                                                         0
  CST044
                 0 0.00000e+00
                                        0
                                                  0.0000000000
                                                                         0
                                        Λ
## CSI055
                 0 0.00000e+00
                                                  0 0.0003442267
                                                                         0
##
  CSI065
                 0 0.00000e+00
                                        0
                                                  0 0.000000000
                                                                         0
##
  CST076
                 0 2.890675e-05
                                                  0.0000000000
                                                                         0
##
              Otu05067
                            Otu05068
                                         Otu05069 Otu05070 Otu05071
## CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
                                                          0
  CSI012 1.724971e-05 0.000000e+00 6.899883e-05
                                                          0
                                                                   0
   CSI022 0.000000e+00 2.151556e-05 8.606222e-05
                                                                   0
                                                          0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
##
              0 \pm 1105072
                            Otu05073
                                         Otu05074 Otu05075 Otu05076 Otu05077
   CSI001 0.000000e+00 0.0000000000 2.345326e-05
                                                          0
                                                                   0
                                                                             0
  CSI012 0.000000e+00 0.000000000 0.000000e+00
                                                                   0
                                                          0
                                                                             0
   CSI022 0.000000e+00 0.000000000 0.000000e+00
                                                                   0
                                                                             0
  CSI044 0.000000e+00 0.000000000 0.000000e+00
                                                          0
                                                                   0
                                                                             0
   CSI055 0.000000e+00 0.000000000 0.000000e+00
                                                          0
                                                                   0
                                                                             0
   CSI065 0.000000e+00 0.000000000 0.000000e+00
                                                          0
                                                                   0
                                                                             0
   CSI076 0.000000e+00 0.0004625079 0.000000e+00
                                                                             0
##
              Otu05078 Otu05079
                                     0t1105080 0t1105081
                                                            Otu05082 Otu05083
  CSI001 2.345326e-05
                               0 0.000000e+00
                                                      0 4.690652e-05
                                                                             0
  CSI012 3.449941e-05
                                                      0 0.00000e+00
                                                                             0
                               0 3.449941e-05
  CSI022 2.151556e-05
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
## CSI044 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
   CSI055 0.000000e+00
                               0 0.00000e+00
                                                      0 6.454250e-05
                                                                             0
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                      0 0.000000e+00
   CST076 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000e+00
                                                                             0
##
          Otu05084 Otu05085 Otu05086 Otu05087 Otu05088
                                                             Otu05089
## CSI001
                           0
                                    0
                                                       0 0.000000e+00
                 0
                                             0
                           0
## CSI012
                 0
                                    0
                                             0
                                                       0 1.724971e-05
## CSI022
                 0
                           0
                                    0
                                             0
                                                       0 4.303111e-05
## CSI044
                 0
                           0
                                    0
                                             0
                                                       0 0.00000e+00
```

```
## CSI055
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
  CSI065
                                               0
                                                         0 0.000000e+00
##
                  0
                            0
                                     0
##
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
               Otu05090 Otu05091
                                      Otu05092 Otu05093 Otu05094
                                                                       Ot:1105095
##
   CSI001 0.0000000000
                                0 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
                                                       0
   CSI012 0.0000000000
                                0 0.00000e+00
                                                                 0 3.449941e-05
   CSI022 0.0001075778
                                0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
  CSI044 0.0000000000
                                0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
   CSI055 0.0000000000
                                0 2.151417e-05
                                                       Λ
                                                                 0 0.000000e+00
                                                       Λ
   CSI065 0.0000000000
                                0 0.00000e+00
                                                                 0 0.00000e+00
   CSI076 0.0000000000
                                0 0.00000e+00
                                                                 0 0.00000e+00
          Otu05096 Otu05097 Otu05098
##
                                           Otu05099
                                                          Otu05100 Otu05101
##
  CSI001
                  0
                            0
                                     0 2.345326e-05 0.000000e+00
                                                                           0
                            0
##
  CSI012
                  0
                                     0 0.000000e+00 3.449941e-05
                                                                           0
  CSI022
                  0
                            0
                                     0 8.606222e-05 0.000000e+00
                                                                           0
##
   CSI044
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
##
   CSI055
                                                                           0
   CSI065
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
                                     0 0.000000e+00 0.000000e+00
                            0
##
   CST076
                  0
                                                                           0
##
          Otu05102 Otu05103 Otu05104 Otu05105 Otu05106
                                                               Ot:1105107
##
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0 1.724971e-05
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
   CSI044
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                               0
##
   CST055
                  0
                            0
                                     0
                                                         0 0.00000e+00
   CSI065
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
                            Otu05109
##
               Otu05108
                                         Otu05110 Otu05111 Otu05112 Otu05113
   CSI001 0.000000e+00 0.000000e+00 0.000000000
##
                                                           0
                                                                    0
                                                                              0
   CSI012 0.000000e+00 0.000000e+00 0.000000000
                                                           0
                                                                    0
                                                                              0
   CSI022 0.000000e+00 0.000000e+00 0.000000000
                                                           0
                                                                    0
                                                                              0
   CSI044 0.000000e+00 0.000000e+00 0.000000000
                                                           0
                                                                    0
                                                                              0
   CSI055 4.302833e-05 0.000000e+00 0.000387255
                                                           0
                                                                    0
                                                                              0
   CSI065 0.000000e+00 3.782005e-05 0.000000000
                                                                    0
                                                                              0
                                                           0
   CSI076 0.000000e+00 0.000000e+00 0.000000000
                                                           0
                                                                    0
                                                                              0
##
                            Otu05115 Otu05116 Otu05117 Otu05118 Otu05119
##
               Ot:1105114
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI012 0.000000e+00 1.724971e-05
                                              0
                                                       0
                                                                 0
                                                                           Λ
   CSI022 0.000000e+00 3.012178e-04
                                              0
                                                                 0
                                                                           0
                                                       0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       Λ
                                                                 0
                                                                           0
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                       0
                                                                           0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                       Ω
                                                                 0
                                                                           0
##
          Otu05120 Otu05121 Otu05122
                                            Otu05123 Otu05124
                                                                   0tu05125
## CSI001
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.00000e+00
## CSI012
                            0
                  0
                                     0 0.000000e+00
                                                             0 0.00000e+00
##
  CSI022
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.00000e+00
                            0
##
   CSI044
                  0
                                     0 0.00000e+00
                                                             0 0.00000e+00
                                     0 0.000000e+00
##
   CSI055
                  0
                            0
                                                               0.000000e+00
##
   CSI065
                  0
                            0
                                       0.000000e+00
                                                               0.000000e+00
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.000000e+00
##
   CST076
##
          Otu05126 Otu05127 Otu05128 Otu05129
                                                    Otu05130 Otu05131
## CSI001
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                     0
## CSI012
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                     0
```

```
## CSI022
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                     0
                  0
                           0
                                               0 0.00000e+00
##
  CSI044
                                     0
                                                                     0
   CSI055
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                     0
  CSI065
                  0
                           0
                                     0
                                                7.56401e-05
                                                                     0
##
##
   CST076
                           0
                                     0
                                               0 0.00000e+00
                                                                     0
               Otu05132 Otu05133 Otu05134 Otu05135
##
                                                         Otu05136
                                                                       0t.1105137
   CSI001 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
  CSI012 0.000000e+00
                                0
                                         0
                                                   0 1.724971e-05 0.000000e+00
   CSI022 2.151556e-05
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
   CSI044 0.000000e+00
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
##
   CSI076 0.000000e+00
                                0
                                         0
                                                     0.000000e+00 5.781349e-05
               Otu05138 Otu05139
                                                         Otu05142 Otu05143
##
                                 Otu05140 Otu05141
   CSI001 1.876261e-04
                                0
                                         0
                                                    0.0000000000
                                                                          0
##
                                                   0
   CSI012 0.000000e+00
                                0
                                         0
                                                     0.000000000
                                                                          0
   CSI022 0.000000e+00
                                         0
                                                                          0
                                0
                                                     0.000000000
   CSI044 0.000000e+00
                                0
                                         0
                                                     0.000000000
                                                                          0
   CSI055 0.000000e+00
                                0
                                         0
                                                                          0
                                                    0.000000000
   CSI065 0.000000e+00
                                0
                                         0
                                                    0.0000000000
                                                                          0
##
   CSI076 0.000000e+00
                                0
                                         0
                                                   0 0.000000000
                                                                          0
          Otu05144 Otu05145 Otu05146 Otu05147
##
                                                     Otu05148 Otu05149
## CSI001
                           0
                                     0
                  0
                                               0 0.00000e+00
                                                                      0
                           0
##
   CSI012
                  0
                                     0
                                               0 1.724971e-05
                                                                      0
##
  CSI022
                  0
                           0
                                     0
                                               0 2.151556e-05
                                                                      0
   CSI044
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
   CSI055
                  0
                           0
                                     0
                                                                      0
##
                                               0 0.00000e+00
                           0
                                                                      0
##
   CSI065
                  0
                                     0
                                               0 0.00000e+00
                                                                      0
                           0
                                     0
##
   CSI076
                  0
                                               0 0.00000e+00
##
             Otu05150
                           Otu05151 Otu05152
                                                   Otu05153 Otu05154 Otu05155
##
   CSI001 0.00000e+00 0.000000e+00
                                              0.000000e+00
                                                                    0
                                                                              0
   CSI012 0.00000e+00 1.724971e-05
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI022 0.00000e+00 0.000000e+00
                                              0.000000e+00
                                                                    0
                                                                              0
                                                                    0
                                                                              0
   CSI044 0.00000e+00 0.000000e+00
                                              0.000000e+00
   CSI055 0.00000e+00 0.000000e+00
                                              2.151417e-05
                                                                    0
                                                                              0
   CSI065 0.00000e+00 0.000000e+00
                                                                    0
                                                                              0
##
                                             0 0.000000e+00
##
   CSI076 0.00000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
##
          Otu05156 Otu05157 Otu05158 Otu05159
                                                                   Otu05161
                                                     Ot:1105160
## CSI001
                           0
                                     0
                                               0 0.000000000 0.000000e+00
                  0
  CSI012
                           0
                                     0
                                               0 0.000000000 0.000000e+00
##
                  0
                           0
   CSI022
                  0
                                     0
                                               0 0.000000000 6.454667e-05
  CSI044
                  0
                           0
                                     0
                                               0 0.000000000 0.000000e+00
##
##
   CSI055
                  0
                           0
                                     0
                                               0 0.000000000 0.000000e+00
                           0
   CSI065
                  0
                                     0
                                               0 0.000000000 0.000000e+00
##
##
   CSI076
                  0
                           0
                                     0
                                               0 0.000000000 0.000000e+00
                            Otu05163 Otu05164 Otu05165
##
               Otu05162
                                                              Otu05166
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000000
                                              0
   CSI012 0.000000e+00 0.000000e+00
                                                       0 0.000000000
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000000000
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000000000
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0.0.0003657408
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000000000
##
   CSI076 5.781349e-05 8.672024e-05
                                              0
                                                       0.0000000000
##
               0tu05167
                            Otu05168 Otu05169 Otu05170 Otu05171 Otu05172
```

```
## CSI001 2.345326e-05 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                       0
                                                                           0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       Λ
                                                                 0
                                                                           0
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI065 0.000000e+00 2.647404e-04
                                              Λ
                                                                 0
                                                                           0
                                                       Ω
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                                           0
                                                        Otu05177 Otu05178
##
          0tu05173
                       Otu05174 Otu05175 Otu05176
## CSI001
                  0 0.00000e+00
                                        0
                                                  0 0.00000e+00
                                                                         0
                                        0
##
  CSI012
                  0 0.00000e+00
                                                  0 0.00000e+00
                                                                         0
  CSI022
                  0 0.00000e+00
                                        0
                                                  0 0.00000e+00
                                                                         0
   CSI044
                                        0
                                                                         0
##
                  0 0.00000e+00
                                                  0 0.00000e+00
##
   CSI055
                  0 0.00000e+00
                                        0
                                                  0 0.000000e+00
                                                                         0
                                                                         0
##
   CSI065
                  0 7.56401e-05
                                        0
                                                  0 0.00000e+00
   CSI076
                  0 0.00000e+00
                                        0
                                                  0 2.890675e-05
                                                                         0
##
##
               Otu05179 Otu05180
                                      Otu05181 Otu05182 Otu05183 Otu05184
   CSI001 0.000000e+00
                                                       0
                                                                 0
##
                                0 0.00000e+00
                                                                           0
   CSI012 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
                                0 2.151556e-05
  CSI022 2.151556e-05
                                                                 0
                                                                           0
                                                       0
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
##
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                       Λ
                                                                 0
                                                                           0
   CSI065 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
  CSI076 0.000000e+00
                                                                 0
##
                                0 0.00000e+00
                                                       0
                                                                           0
          Otu05185 Otu05186 Otu05187 Otu05188
##
                                                     Otu05189 Otu05190
## CSI001
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
  CSI012
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
## CSI022
                  0
                           0
                                     0
                                               0 0.0001290933
                                                                      0
                           0
##
   CSI044
                  0
                                     0
                                               0 0.000000000
                                                                      0
                           0
   CSI055
                  0
                                     0
                                                                      0
##
                                               0 0.000000000
##
  CSI065
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
##
   CSI076
                  0
                           0
                                     0
                                               0 0.000000000
                                                                      0
##
               Otu05191 Otu05192 Otu05193
                                                Otu05194 Otu05195 Otu05196
##
   CSI001 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
   CSI012 0.000000e+00
                                0
                                                                 0
                                                                           0
                                         0 3.449941e-05
   CSI022 0.000000e+00
                                0
                                         0 2.151556e-05
                                                                 0
                                                                           0
   CSI044 0.000000e+00
                                0
                                                                 0
                                                                           0
                                         0 0.00000e+00
   CSI055 0.000000e+00
                                0
                                           0.000000e+00
                                                                 0
                                                                           0
##
  CSI065 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
   CSI076 0.000000e+00
                                0
                                           0.000000e+00
                                                                 0
##
                                         0
                                                                           0
##
               Otu05197 Otu05198 Otu05199
                                                              0tu05201
                                                Ot:1105200
  CSI001 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
  CSI012 0.000000e+00
                                0
                                         0 0.000000e+00 3.449941e-05
                                         0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                                0
                                0
   CSI044 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0
   CSI065 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
               Otu05202 Otu05203 Otu05204 Otu05205 Otu05206
##
                                                                   Otu05207
  CSI001 4.690652e-05
                                0
                                         0
                                                   0
                                                             0 4.690652e-05
   CSI012 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                             0.0.000000e+00
## CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
## CSI055 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
```

```
0
## CSI076 0.000000e+00
                         0
                                  0
                                                           0 0.000000e+00
##
          Ot:105208
                       Otu05209 Otu05210
                                              Otu05211 Otu05212 Otu05213
## CSI001
                 0 2.345326e-05
                                        0 2.345326e-05
                                                               0
## CSI012
                 0 0.000000e+00
                                        0 3.449941e-05
                                                               0
                                                                         Λ
## CSI022
                 0 0.000000e+00
                                        0 0.000000e+00
                                                               0
                                                                         0
## CSI044
                 0 0.000000e+00
                                        0 0.000000e+00
                                                               0
                                                                         0
                 0 0.000000e+00
                                                               0
  CSI055
                                        0 0.000000e+00
## CSI065
                 0 0.000000e+00
                                        0 0.00000e+00
                                                               0
                                                                         0
##
  CSI076
                 0 0.000000e+00
                                        0 0.000000e+00
                                                               Ω
                                                                         0
##
              Otu05214 Otu05215
                                     Otu05216 Otu05217 Otu05218 Otu05219
## CSI001 0.000000e+00
                           0 0.00000e+00
                                                      0
                                                               0
## CSI012 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0
                                                                         0
## CSI022 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0
                                                                         0
                                                               0
## CSI044 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                                         0
  CSI055 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0
                                                                         0
  CSI065 0.000000e+00
                               0 3.782005e-05
                                                      0
                                                               0
                                                                         0
  CSI076 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0
                                                                         0
##
          Otu05220
                       Otu05221 Otu05222 Otu05223 Otu05224 Otu05225 Otu05226
                                                 0
## CST001
                 0.000000e+00
                                        0
                                                           0
                                                                    0
                                                                              0
## CSI012
                 0 3.449941e-05
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI022
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI044
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
## CSI055
                 0 0.000000e+00
                                        Λ
                                                  0
                                                           Λ
                                                                              Λ
                                                                    0
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
## CSI065
                                                                    0
                                        Λ
                                                  0
                                                           Λ
                                                                              0
## CSI076
                 0 0.00000e+00
                                                                    0
          Otu05227 Otu05228 Otu05229
                                         Otu05230 Otu05231 Otu05232
## CSI001
                 0
                          0
                                    0 4.690652e-05
                                                           0
                                                                    0
## CSI012
                           0
                                                           0
                 0
                                    0 1.724971e-05
                                                                    0
                                                           0
## CSI022
                 0
                           0
                                    0 0.000000e+00
                                                                    0
## CSI044
                 0
                          0
                                    0 0.00000e+00
                                                           0
                                                                    0
## CSI055
                 0
                          0
                                    0 2.151417e-05
                                                           0
                                                                    0
##
  CSI065
                 0
                           0
                                    0 0.000000e+00
                                                           0
                 0
##
  CSI076
                           0
                                    0 2.890675e-05
                                                           0
##
                            Otu05234 Otu05235 Otu05236 Otu05237
              Otu05233
                                                                      Otu05238
## CSI001 2.345326e-05 0.000000e+00
                                            0
                                                      0
                                                               0 4.690652e-05
  CSI012 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 0.000000e+00
## CSI022 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 0.000000e+00
  CSI044 0.000000e+00 0.000000e+00
                                            0
                                                      Λ
                                                               0 0.000000e+00
  CSI055 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 0.000000e+00
  CSI065 0.000000e+00 0.000000e+00
                                            0
                                                      Λ
                                                               0 1.134602e-04
   CSI076 0.000000e+00 0.000000e+00
                                            0
                                                               0.0.000000e+00
          Otu05239 Otu05240 Otu05241 Otu05242 Otu05243 Otu05244
##
                                                                      0tu05245
## CSI001
                 Ω
                          Ω
                                    0
                                              0
                                                       0
                                                                0 0.00000e+00
## CSI012
                           0
                                    0
                                              0
                                                       0
                 0
                                                                0 1.724971e-05
## CSI022
                           0
                 0
                                    0
                                              0
                                                       0
                                                                0 0.00000e+00
                                                       0
## CSI044
                 0
                           0
                                    0
                                              0
                                                                0 0.00000e+00
## CSI055
                 0
                           0
                                    0
                                              0
                                                       0
                                                                0 0.00000e+00
                 0
                           0
                                    0
                                              0
                                                       0
## CSI065
                                                                0 0.00000e+00
                 0
                           0
                                    0
                                             0
                                                       0
                                                                0 0.000000e+00
              Otu05246 Otu05247 Otu05248 Otu05249 Otu05250 Otu05251 Otu05252
## CSI001 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI012 0.0000000000
## CSI022 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI044 0.0000000000
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
```

```
## CSI055 0.0000645425
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI065 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI076 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
##
               Otu05253 Otu05254 Otu05255
                                                Otu05256 Otu05257
                                                                        Otu05258
   CSI001 2.345326e-05
                                0
                                          0 0.000000000
                                                                  0 0.000000e+00
   CSI012 1.207479e-04
                                0
##
                                          0 0.000000000
                                                                  0 1.724971e-05
   CSI022 0.000000e+00
                                0
                                                                  0 0.000000e+00
                                          0 0.000000000
   CSI044 0.000000e+00
                                0
                                          0 0.000000000
                                                                  0 0.00000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                           0.000000000
                                                                  0 0.000000e+00
                                0
   CSI065 0.000000e+00
                                          0 0.000000000
                                                                  0 0.00000e+00
   CSI076 2.890675e-05
                                          0 0.000000000
                                                                  0 0.00000e+00
           Otu05259 Otu05260 Otu05261 Otu05262 Otu05263 Otu05264 Otu05265
##
##
   CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
   CSI012
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                  0
                                      0
  CSI022
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
##
##
   CSI044
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI055
                                      0
   CSI065
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                                               0
                                                         0
                                                                            0
##
   CST076
                  0
                            0
                                      0
                                                                   0
##
           Otu05266
                         Otu05267 Otu05268 Otu05269 Otu05270
                                                                    0tu05271
##
  CSI001
                  0 0.000000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
   CSI012
                  0 0.000000e+00
                                          0
                                                    0
                                                             0 1.724971e-05
  CSI022
                                                    0
##
                  0.000000e+00
                                          0
                                                             0 0.00000e+00
                                          0
                                                    0
   CSI044
                    0.000000e+00
                                                             0 0.00000e+00
                                                    0
##
   CST055
                    0.000000e+00
                                          0
                                                             0 0.00000e+00
   CSI065
                    0.000000e+00
                                          0
                                                    0
                                                             0 0.000000e+00
##
   CSI076
                    0.000000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
                  0
                         Otu05273 Otu05274 Otu05275
##
          0tu05272
                                                          Otu05276 Otu05277
##
   CSI001
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00
                                                                            0
   CSI012
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00
                                                                            0
##
   CSI022
                  0
                    0.000000e+00
                                          0
                                                     0.000000e+00
                                                                            0
##
   CSI044
                    0.000000e+00
                                          0
                                                      0.000000e+00
                                                                            0
##
   CSI055
                    0.000000e+00
                                          0
                                                     2.151417e-05
                                                                            0
                                          0
                                                                            0
##
   CSI065
                  0 0.000000e+00
                                                     0.000000e+00
                    5.781349e-05
                                          0
                                                    0 0.00000e+00
                                                                            0
##
   CSI076
          Otu05278 Otu05279 Otu05280 Otu05281 Otu05282 Otu05283
                                                                         0tu05284
##
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
  CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
  CSI022
                  0
                            0
                                               0
                                                         0
                                                                   0 0.000000e+00
                                      0
                  Λ
                            0
                                               0
                                                         0
##
  CSI044
                                      0
                                                                   0 0.000000e+00
                  0
                            0
                                      0
                                               0
                                                         0
   CSI055
                                                                   0 4.302833e-05
   CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
                                               0
##
   CSI076
                  0
                            0
                                      0
                                                                   0 0.00000e+00
                        Otu05286 Otu05287 Otu05288
##
          0tu05285
                                                          Otu05289 Otu05290
##
  CSI001
                  0.0000000000
                                          0
                                                    0 0.000000000
                                                                            0
  CSI012
                                          0
                                                    0 0.0001724971
                                                                            0
##
                  0
                    0.0001379977
##
   CSI022
                  0
                    0.000000000
                                          0
                                                      0.000000000
                                                                            0
                                          0
                                                                            0
   CSI044
                    0.000000000
                                                     0.000000000
##
   CSI055
                    0.000000000
                                          0
                                                     0.000000000
                                                                            0
##
   CSI065
                    0.000000000
                                          0
                                                     0.000000000
                                                                            0
                    0.000000000
                                          0
                                                    0 0.000000000
                                                                            0
##
   CST076
                  0
##
          0tu05291
                         0tu05292
                                       Otu05293
                                                     0tu05294
                                                                   Otu05295
## CSI001
                  0 0.000000000 0.000000000 4.690652e-05 0.000000e+00
                  0 0.000000000 0.000000000 3.449941e-05 0.000000e+00
## CSI012
```

```
## CSI022
                  0 0.000000000 0.000000000 0.000000e+00 0.000000e+00
  CST044
                  0 0.000000000 0.0002365884 0.000000e+00 1.971570e-05
  CSI055
                  0 0.0001075708 0.0000000000 0.000000e+00 0.000000e+00
                  0 0.000000000 0.0001512802 0.000000e+00 0.000000e+00
  CSI065
##
##
   CST076
                  0 0.000000000 0.000000000 0.000000e+00 0.000000e+00
          Otu05296 Otu05297 Otu05298 Otu05299 Otu05300
                                                                Otu05301 Otu05302
##
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
  CSI022
                  0
                            0
                                      0
                                               0
                                                         0 0.000000e+00
                                                                                 0
                                               0
                                                                                 0
##
  CSI044
                  0
                            0
                                      0
                                                         0 0.00000e+00
   CSI055
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
                            0
                                      0
                                               0
                                                                                 0
##
   CSI065
                  0
                                                         0 0.00000e+00
##
   CSI076
                  0
                                      0
                                               0
                                                         0 0.000000e+00
                                                                                 0
                             Otu05304 Otu05305 Otu05306
##
               Otu05303
                                                               Otu05307
   CSI001 0.000000e+00 9.381303e-05
                                              0
                                                        0 0.000000e+00
   CSI012 3.449941e-05 1.724971e-05
                                              0
                                                        0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                        0 0.000000e+00
   CSI055 0.000000e+00 0.000000e+00
                                              0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
##
               Otu05308 Otu05309 Otu05310 Otu05311 Otu05312 Otu05313 Otu05314
## CSI001 0.000000e+00
                                                    0
                                0
                                          0
                                                             0
                                                                       0
                                                                                 0
   CSI012 0.000000e+00
                                          0
                                                             0
                                0
                                                    0
                                                                       0
                                                                                 0
                                                                                 0
  CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                 0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                0
                                          0
                                                    0
                                                              0
                                                                                 0
   CSI065 0.000000e+00
                                                                       0
                                0
                                                              0
   CSI076 0.000000e+00
                                          0
                                                    0
                                                                       Λ
                                                                                 0
##
           Otu05315 Otu05316 Otu05317 Otu05318 Otu05319 Otu05320
                                                                     Otu05321
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
##
   CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI022
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                               0
                                                         0
##
  CSI044
                                      0
                                                                   0
                                                                             0
  CSI055
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI065
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
                                      0
##
   CSI076
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
          Otu05322 Otu05323
                                  Otu05324 Otu05325 Otu05326 Otu05327 Otu05328
                            0 0.000000e+00
## CSI001
                  0
                                                    0
                                                             0
                                                                       0
## CSI012
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                            0 0.00000e+00
## CSI022
                                                              0
                                                                                 0
                  0
                            0 0.000000e+00
                                                    0
## CSI044
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
  CSI055
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                                              0
                                                                                 0
##
  CSI065
                  \cap
                            0 0.00000e+00
                                                    0
                                                                       0
                                                              0
##
  CSI076
                  0
                            0 0.00000e+00
           Otu05329 Otu05330 Otu05331
                                                         Otu05333 Otu05334
##
                                            Otu05332
## CSI001
                  0
                            0
                                      0 0.000000e+00 0.00000e+00
                                                                          0
  CSI012
##
                  0
                            0
                                      0 0.000000e+00 0.00000e+00
                                                                          0
  CSI022
                  0
                            0
                                      0 0.000000e+00 0.00000e+00
                                                                          0
##
  CSI044
                  0
                            0
                                      0 0.000000e+00 0.00000e+00
                                                                          0
  CSI055
                  0
                            0
                                      0 0.000000e+00 6.45425e-05
                                                                          0
##
## CSI065
                  0
                            0
                                      0 0.000000e+00 0.00000e+00
                                                                          0
## CSI076
                  0
                            0
                                      0 2.890675e-05 0.00000e+00
                                                                          0
##
          Otu05335 Otu05336 Otu05337 Otu05338 Otu05339 Otu05340 Otu05341
```

```
## CSI001
                            0
                                                                             0
  CSI012
                                                         0
##
                  0
                            0
                                      0
                                                0
                                                                   0
                                                                             0
##
  CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                             0
  CSI044
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                         0
                                                                             0
                            0
                                                0
                                                         0
                                                                             0
##
  CSI065
                  0
                                      0
                                                                   0
                                                0
                                                                             0
##
   CSI076
                  0
                                      0
               Otu05342
##
                             Otu05343 Otu05344 Otu05345
                                                               Otu05346 Otu05347
   CSI001 2.345326e-05 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                O
                                              0
   CSI012 0.000000e+00 3.449941e-05
                                                        0 1.724971e-05
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
                                               0
   CSI065 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
##
           0tu05348
                         Otu05349 Otu05350
                                                 Otu05351 Otu05352 Otu05353
## CSI001
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
  CSI012
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                          0 0.000000e+00
  CSI022
                  0 0.000000e+00
                                                                  0
                                                                            0
##
##
  CSI044
                  0 2.563041e-04
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
  CSI055
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI065
                  0 3.782005e-05
                                          0 0.000000e+00
                                                                  0
                  0 0.000000e+00
                                                                  0
##
  CST076
                                          0 5.781349e-05
                                                                            0
                    Otu05355 Otu05356
                                            Otu05357 Otu05358 Otu05359 Otu05360
##
           Otu05354
## CSI001
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
  CSI012
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
                            0
                                                              0
                                                                                 0
##
   CSI044
                  0
                                      0 0.000000e+00
                                                                       0
                            0
                                                              0
  CSI055
                  0
                                                                       0
                                                                                 0
##
                                      0 2.151417e-05
## CSI065
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
##
  CSI076
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
##
          Otu05361 Otu05362 Otu05363
                                           Otu05364
                                                         Otu05365 Otu05366
## CSI001
                  0
                            0
                                      0 0.00000e+00 0.000000e+00
  CSI012
                            0
                                      0 0.00000e+00 0.000000e+00
##
                  0
                                                                           0
   CSI022
                  0
                            0
                                      0 0.00000e+00 0.000000e+00
                                                                           0
                  0
                            0
                                      0 1.97157e-05 0.000000e+00
                                                                           0
##
  CSI044
## CSI055
                  0
                            0
                                      0 0.00000e+00 6.454250e-05
## CSI065
                  0
                            0
                                      0 0.00000e+00 0.000000e+00
                                                                           0
                  0
                            0
                                      0 0.00000e+00 2.890675e-05
##
   CSI076
                         Otu05368 Otu05369 Otu05370
##
                                                          Otu05371 Otu05372
          Otu05367
                  0 0.000000e+00
## CSI001
                                          0
                                                    0 0.000000000
                                                                            0
## CSI012
                  0 0.00000e+00
                                          0
                                                    0 0.000000000
                                                                            0
   CSI022
                  0 0.00000e+00
                                          0
                                                    0 0.000000000
                                                                            0
                                          0
##
   CSI044
                  0 0.000000e+00
                                                    0 0.000000000
                                                                            0
  CSI055
                  0 0.000000e+00
                                          0
                                                    0 0.0001936275
                                                                            0
## CSI065
                  0 0.000000e+00
                                                    0 0.000000000
                                                                            0
                                          0
##
   CSI076
                  0 0.000000e+00
                                          0
                                                    0 0.000000000
           Otu05373 Otu05374
##
                                  Otu05375 Otu05376
                                                      Otu05377 Otu05378
## CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
##
  CSI012
                  0
                            0 5.174912e-05
                                                    0
                                                              0
                                                                       0
                            0 0.000000e+00
                  0
                                                    0
                                                              0
                                                                       0
##
  CSI022
## CSI044
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
## CSI055
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                       0
## CSI065
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                       0
```

```
## CSI076
                           0 0.00000e+00
                                                            0
                                                                     0
##
             Otu05379 Otu05380 Otu05381 Otu05382
                                                        Oti105383 Oti105384
## CSI001 0.00000e+00
                              0
                                        0
                                                 0 0.000000000
                                                                         0
  CSI012 0.00000e+00
                              0
                                        0
                                                 0 0.000000000
                                                                         0
   CSI022 0.00000e+00
                              0
                                        0
                                                 0 0.000000000
                                                                         0
   CSI044 0.00000e+00
                              0
                                        0
                                                                         0
##
                                                 0 0.000000000
                              0
   CSI055 6.45425e-05
                                        0
                                                 0 0.000000000
                                                                         0
                              0
  CSI065 0.00000e+00
                                        0
                                                 0 0.000000000
                                                                         0
   CSI076 0.00000e+00
                              0
                                        0
                                                 0 0.000000000
                                                                         0
                        Otu05386 Otu05387
                                               Otu05388 Otu05389 Otu05390
##
          Otu05385
  CSI001
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                0
                                                                          0
  CSI012
                                                                0
                                                                          0
##
                  0 0.00000e+00
                                         0 0.00000e+00
##
  CSI022
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
                                         0 0.00000e+00
                                                                0
##
   CSI044
                  0 0.00000e+00
                                                                          0
   CSI055
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
##
##
   CSI065
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                0
                                                                          0
                  0 0.000000e+00
                                         0 2.890675e-05
                                                                0
##
   CSI076
                                                                          0
##
              Otu05391
                            Otu05392 Otu05393 Otu05394 Otu05395 Otu05396
  CSI001 0.000000e+00 0.000000e+00
##
                                             0
                                                       0
                                                                0
                                                                          0
   CSI012 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                       Λ
                                                                0
                                                                          0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
  CSI055 2.151417e-05 2.151417e-05
                                             0
                                                                0
                                                       Ω
                                                                          0
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                                0
                                                                          0
                                                                0
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                                          0
##
          Otu05397
                        Otu05398 Otu05399 Otu05400
                                                         Otu05401 Otu05402
## CSI001
                                         0
                                                  0 0.000000000
                                                                          0
                  0 0.000000e+00
                                         0
##
   CSI012
                  0 0.00000e+00
                                                  0 0.000000000
                                                                          0
   CSI022
                  0 0.000000e+00
                                         0
                                                  0 0.000000000
                                                                          0
##
   CSI044
                  0 0.00000e+00
                                         0
                                                  0 0.000000000
                                                                          0
##
   CSI055
                  0 0.00000e+00
                                         0
                                                    0.000000000
                                                                          0
##
   CSI065
                  0 0.000000e+00
                                         0
                                                    0.0000000000
                                                                          0
##
   CSI076
                  0
                   0.000000e+00
                                         0
                                                    0.000000000
                                                                          0
                        Otu05404 Otu05405 Otu05406
##
          Otu05403
                                                       Otu05407
                                                                    0 \pm 1105408
   CSI001
                  0 0.00000e+00
                                         0
                                                    0.00000000 0.0000000000
##
   CSI012
                  0 0.000000e+00
                                         0
                                                  0 0.00000000 0.000000000
##
   CSI022
                  0 0.00000e+00
                                         0
                                                  0 0.0000000 0.000000000
  CSI044
                  0 0.000000e+00
                                         Λ
                                                  0 0.00000000 0.000000000
##
                  0 2.151417e-05
                                         0
                                                    0.00025817 0.0001721133
   CSI055
                  0 0.000000e+00
                                         0
                                                  0 0.00000000 0.0000000000
##
   CSI065
                                                  0 0.00000000 0.0000000000
   CST076
                  0 0.000000e+00
                                         0
##
              Otu05409 Otu05410
                                     Otu05411 Otu05412
                                                             Otu05413 Otu05414
   CSI001 0.000000e+00
                               0 7.035977e-05
                                                       0 0.00000e+00
                                                                              0
   CSI012 0.000000e+00
                               0 1.724971e-05
                                                       0 0.00000e+00
                                                                              0
   CSI022 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI044 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI055 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000e+00
                                                                              0
##
   CSI076 2.890675e-05
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                              0
##
          Otu05415
                        Otu05416 Otu05417 Otu05418 Otu05419 Otu05420 Otu05421
                  0 0.000000e+00
  CSI001
                                                  0
                                                            0
                                                                               0
##
                                         0
                                                                     0
                                                  0
                                                            0
                                                                               0
## CSI012
                  0 0.00000e+00
                                         0
                                                                     0
## CSI022
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI044
                  0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
```

```
## CSI055
                  0 2.151417e-05
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CST065
                  0.000000e+00
                                          0
                                                             0
                                                                       0
                                                                                 0
##
                                                    0
##
   CSI076
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                                 0
##
          Otu05422 Otu05423 Otu05424
                                                                        Otu05427
                                            Ot:1105425
                                                          0t1105426
##
  CST001
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI012
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI022
                  0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044
                  0
                            0
##
   CSI055
                  0
                            0
                                        1.505992e-04 0.000000e+00 4.302833e-05
                            Λ
                                       0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI065
                  \cap
   CSI076
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 1.734405e-04
                        Otu05429 Otu05430 Otu05431 Otu05432 Otu05433 Otu05434
##
          Otu05428
##
   CSI001
                  0 7.035977e-05
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI012
                  0 0.000000e+00
   CSI022
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI044
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                                 0
##
   CSI055
                  0 0.000000e+00
                                                                       0
   CSI065
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                                 0
##
                                                             0
##
   CST076
                  0.000000e+00
                                          0
                                                    0
                                                                       0
                                                                                 0
##
           Otu05435 Otu05436 Otu05437
                                            Otu05438 Otu05439
                                                                    Otu05440
##
  CSI001
                  \cap
                            Λ
                                      0.000000000
                                                             0 9.381303e-05
  CSI012
                  0
                            0
                                      0 0.0000000000
                                                             0 0.000000e+00
## CSI022
                            0
                  0
                                      0 0.000000000
                                                             0 0.00000e+00
                  0
                            0
##
   CSI044
                                       0.000000000
                                                               1.971570e-05
                  0
                            0
##
   CST055
                                       0.000000000
                                                             0 0.00000e+00
   CSI065
                  0
                            0
                                       0.000000000
                                                             0 0.000000e+00
   CSI076
                  0
                            0
                                      0 0.000000000
                                                             0 0.00000e+00
##
                             Otu05442 Otu05443
                                                    Otu05444 Otu05445 Otu05446
##
               Otu05441
   CSI001 0.000000e+00 0.000000e+00
                                              0 2.345326e-05
                                                                      0
                                                                                0
   CSI012 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
   CSI076 2.890675e-05 0.000000e+00
                                              0 0.00000e+00
                                                                      0
##
               Otu05447 Otu05448 Otu05449 Otu05450 Otu05451 Otu05452 Otu05453
##
   CSI001 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI012 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.0000000000
                                          0
                                                    0
                                                             0
                                                                                 0
                                0
                                                                       0
   CSI044 0.0000000000
                                0
                                          0
                                                    0
                                                             Λ
                                                                       0
                                                                                 O
   CSI055 0.0001721133
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
   CSI065 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI076 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                      Otu05456 Otu05457 Otu05458 Otu05459
##
          Otu05454
                         Otu05455
  CSI001
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
  CSI012
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
##
   CSI022
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                                                                  0
                                                                           0
   CSI044
                  0 0.000000e+00 0.000000e+00
                                                        0
   CSI055
                  0 4.302833e-05 2.151417e-05
                                                        0
                                                                  0
                                                                           0
##
   CSI065
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                  0 0.000000e+00 0.000000e+00
                                                                  0
##
   CST076
                                                        0
                                                                           0
##
               Otu05460 Otu05461
                                      Otu05462 Otu05463
                                                              Otu05464 Otu05465
                                0 0.000000e+00
## CSI001 0.000000e+00
                                                        0.0000000000
                                                                                0
## CSI012 3.449941e-05
                                0 0.00000e+00
                                                        0 0.0001207479
                                                                                0
```

```
## CSI022 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000000
                                                                                0
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000000
                                                                                0
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000000
                                                                                0
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000000
                                                                                0
##
   CSI076 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000000
           Otu05466 Otu05467
                                  Otu05468 Otu05469 Otu05470
##
                                                                    Otu05471
##
  CSI001
                  0
                            0 0.000000000
                                                    0
                                                             0 0.00000e+00
## CSI012
                  0
                            0 0.000000000
                                                    0
                                                             0 1.724971e-05
##
   CSI022
                  0
                            Ω
                              0.000000000
                                                    0
                                                             0 0.000000e+00
                                                    0
##
   CSI044
                  0
                              0.0000197157
                                                             0
                                                               0.000000e+00
   CSI055
                  0
                              0.000000000
                                                    0
                                                               0.000000e+00
                  0
                                                    0
##
   CSI065
                            0
                              0.000000000
                                                               0.000000e+00
##
   CSI076
                  0
                            0.000000000
                                                    0
                                                             0 0.000000e+00
                                                Otu05475 Otu05476 Otu05477
##
          0tu05472
                         Otu05473 Otu05474
  CSI001
                  0 0.000000e+00
                                          0.000000000
                                                                  0
                                                                            0
##
##
   CSI012
                    0.000000e+00
                                          0 0.000000000
                                                                  0
                                                                            0
                                                                  0
                                                                            0
##
   CSI022
                    0.000000e+00
                                          0 0.000000000
   CSI044
                    0.000000e+00
                                          0 0.0002168727
                                                                  0
                                                                            0
   CSI055
                                                                  0
                                                                            0
##
                    0.000000e+00
                                          0 0.000000000
##
   CSI065
                    0.000000e+00
                                          0 0.000000000
                                                                  0
                                                                            0
##
   CST076
                  Λ
                    8.672024e-05
                                          0 0.000000000
                                                                  0
                                                                            0
          0tu05478
                                     Otu05480 Otu05481 Otu05482 Otu05483
##
                        0t.1105479
## CSI001
                  0 0.000000e+00 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI012
##
                  0 0.000000e+00 0.00000e+00
                                                       0
                                                                 0
                                                                          0
##
  CSI022
                  0 0.000000e+00 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI044
                  0 0.000000e+00 3.94314e-05
                                                       0
                                                                 0
                                                                          0
   CSI055
                    0.000000e+00 0.00000e+00
                                                       0
                                                                 0
                                                                          0
##
                                                       0
                                                                          0
##
   CSI065
                    0.000000e+00 0.00000e+00
                                                                 0
                                                                          0
   CSI076
                  0 0.000000e+00 0.00000e+00
                                                       0
                                                                 0
##
##
          Otu05484
                    Otu05485 Otu05486
                                            Otu05487 Otu05488
                                                               Otu05489
                                                                         Otu05490
##
  CSI001
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
   CSI012
                  0
                            0
                                      0 1.724971e-05
                                                             0
                                                                       0
                                                                                 0
##
   CSI022
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                  0
                            0
                                                             0
                                                                                 0
##
   CSI044
                                       0.000000e+00
                                                                       0
   CSI055
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
                                                                                 0
##
                                       0.000000e+00
                            0
                                                             0
                                                                       0
                                                                                 0
##
   CST065
                  0
##
   CSI076
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
               Otu05491 Otu05492 Otu05493
                                                Otu05494 Otu05495 Otu05496
   CSI001 0.000000e+00
                                0
                                                                  0
                                          0 4.690652e-05
                                                                            0
   CSI012 0.000000e+00
                                0
                                                                  0
                                                                            0
##
                                          0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI044 0.000000e+00
                                0
                                                                  0
                                                                            0
##
                                          0 0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                           0.000000e+00
                                                                  0
                                                                            0
                                                                  0
                                                                            Λ
   CSI065 0.000000e+00
                                0
                                           0.000000e+00
                                          0
                                                                  0
##
   CSI076 0.000000e+00
                                          0 0.00000e+00
##
           Otu05497 Otu05498
                                  Otu05499 Otu05500 Otu05501 Otu05502 Otu05503
##
  CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
##
   CSI012
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
##
   CSI022
                  0
                            0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI044
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI055
                            0
                              4.302833e-05
##
  CSI065
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                            0 0.000000e+00
## CSI076
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
          Otu05504 Otu05505
                                  Otu05506 Otu05507 Otu05508 Otu05509 Otu05510
```

```
## CSI001
                            0 7.035977e-05
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI012
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CSI022
##
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
  CSI044
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
##
##
   CSI055
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                  Λ
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CSI065
                            0 0.000000e+00
                                                    0
                                                             0
##
   CSI076
                            0 0.000000e+00
                                                                       0
                                                                                 0
##
          Otu05511
                         Otu05512 Otu05513 Otu05514
                                                      Otu05515
                                                                    Otu05516
## CSI001
                  0 0.000000000
                                          0
                                                    0
                                                             0 0.000000000
                                          0
                                                    0
##
   CSI012
                    0.000000000
                                                             0
                                                               0.000000000
  CSI022
                    0.000000000
                                          0
                                                    0
                                                               0.000000000
   CSI044
                                          0
                                                    0
##
                    0.000000000
                                                               0.000000000
##
   CSI055
                    0.0001075708
                                          0
                                                    0
                                                               0.000000000
   CSI065
                                                    0
##
                    0.000000000
                                          0
                                                             0 0.0002647404
   CSI076
                  0.0000000000
                                          0
                                                    0
                                                             0 0.0000000000
##
##
          0tu05517
                        Otu05518
                                      Otu05519 Otu05520 Otu05521 Otu05522
  CSI001
                                                       0
##
                  0 0.000000e+00 0.000000000
                                                                 0
                                                                          0
##
   CSI012
                  0 0.000000e+00 0.000000000
                                                       0
                                                                 0
                                                                          0
  CSI022
                  0 0.000000e+00 0.000000000
                                                       0
                                                                 0
                                                                          0
##
##
   CSI044
                  0 0.000000e+00 0.000000000
                                                       0
                                                                 0
                                                                          0
##
   CSI055
                  0 0.000000e+00 0.000000000
                                                       0
                                                                 0
                                                                          0
   CSI065
                  0 0.000000e+00 0.000000000
                                                       0
                                                                 0
                                                                          0
##
                  0 0.000000e+00 0.000115627
                                                       0
                                                                 0
                                                                          0
##
  CSI076
                         Otu05524 Otu05525
                                                Otu05526 Otu05527
##
          Otu05523
                                                                        0tu05528
## CSI001
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
  CSI012
                  0 1.724971e-05
                                          0 1.724971e-05
                                                                  0 0.000000e+00
  CSI022
                    2.151556e-05
                                          0 0.000000e+00
                                                                  0 0.00000e+00
##
                  0
##
   CSI044
                    0.000000e+00
                                          0 1.971570e-05
                                                                  0 0.00000e+00
   CSI055
                  0 0.000000e+00
                                          0 0.000000e+00
##
                                                                  0 2.151417e-05
##
   CSI065
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
##
   CSI076
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
##
          0tu05529
                    Otu05530 Otu05531
                                            Otu05532 Otu05533
                                                                   Otu05534
##
  CSI001
                  0
                            0
                                      0 0.000000e+00
                                                             0 0.00000e+00
  CSI012
                            0
                                      0 3.449941e-05
                                                             0 0.00000e+00
##
                  0
   CSI022
                  0
                            0
                                        0.000000e+00
                                                               0.00000e+00
                  0
                            0
                                       0.000000e+00
                                                             0 0.00000e+00
##
  CSI044
##
  CSI055
                  0
                            0
                                      0 0.00000e+00
                                                             0 6.45425e-05
##
  CSI065
                  0
                            0
                                      0 0.000000e+00
                                                               0.00000e+00
                  0
                            0
                                       0.000000e+00
                                                               0.00000e+00
##
   CSI076
##
           Otu05535
                    Otu05536 Otu05537
                                                               Otu05540 Otu05541
                                            Otu05538 Otu05539
                                                             0
  CSI001
                  0
                            0
                                     0 7.035977e-05
                                                                       0
## CSI012
                  0
                            0
                                      0 1.897468e-04
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
##
  CSI022
                  0
                            0
                                       0.000000e+00
                                                             0
                                                                       0
                  0
                            0
                                                             0
                                                                       0
                                                                                 0
##
   CSI044
                                       0.000000e+00
                            0
                                                             0
                                                                                 0
##
   CSI055
                  0
                                      0 0.000000e+00
                                                                       0
  CSI065
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
                  0
##
   CSI076
                            0
                                      0 0.000000e+00
                                                             0
                                                                                 0
##
               Otu05542 Otu05543 Otu05544 Otu05545 Otu05546
                                                                    Otu05547
   CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000000
   CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                               0.0001034982
                                0
                                          0
                                                    0
   CSI022 2.151556e-05
                                                               0.000000000
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000000
## CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000000
## CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000000
```

```
## CSI076 0.000000e+00
                                                  0
                                                            0 0.000000000
##
          Otu05548 Otu05549
                                 Otu05550 Otu05551
                                                        Otu05552 Otu05553
## CSI001
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
## CSI012
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
  CSI022
                  0
                             0.000000e+00
                                                  0 0.00000e+00
                                                                          0
                  0
                                                  0 0.000000e+00
                                                                          0
##
  CSI044
                           0 0.00000e+00
  CSI055
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
## CSI065
                  0
                           0 0.00000e+00
                                                  0 0.00000e+00
                                                                          0
##
  CSI076
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
                                               Otu05557 Otu05558 Otu05559
##
          Otu05554
                        Otu05555 Otu05556
  CSI001
                  0 0.00000e+00
                                         0 0.000000000
                                                                0
                                                                          0
  CSI012
                                         0 0.000000000
                                                                0
                                                                          0
##
                  0 0.00000e+00
##
   CSI022
                  0 0.000000e+00
                                         0.000000000
                                                                0
                                                                          0
                                         0 0.000000000
                                                                0
##
   CSI044
                  0 0.000000e+00
                                                                          0
   CSI055
                  0 4.302833e-05
                                                                0
                                                                          0
##
                                         0 0.000000000
##
   CSI065
                   0.000000e+00
                                         0 0.000000000
                                                                0
                                                                          0
                  0 0.000000e+00
                                                                0
##
   CSI076
                                         0 0.0004046945
                                                                          0
##
          Otu05560 Otu05561 Otu05562
                                           Otu05563 Otu05564 Otu05565 Otu05566
## CSI001
                  0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
##
  CSI012
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
##
  CSI022
                  0
                           0
                                     0 0.000000e+00
                                                            Λ
                                                                     0
                                                                               0
  CSI044
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                               0
## CSI055
                  0
                           0
                                                            0
                                                                               O
                                     0 0.000000e+00
                                                                     0
                           0
                                                            0
##
   CSI065
                  0
                                     0 0.00000e+00
##
  CSI076
                  0
                           0
                                     0 0.00000e+00
                                                            \cap
                                                                               0
##
              Otu05567 Otu05568 Otu05569
                                               Otu05570 Otu05571
                                                                      0tu05572
##
   CSI001 0.0000000000
                               0
                                                                0 0.00000e+00
                                         0 4.690652e-05
                               0
   CSI012 0.0000000000
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI022 0.0000000000
                               0
                                         0 0.000000e+00
                                                                0 0.00000e+00
   CSI044 0.0000000000
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI055 0.0000000000
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI065 0.0000000000
                               Λ
                                         0
                                          0.000000e+00
                                                                0 0.000000e+00
   CSI076 0.0000000000
                                         0 2.890675e-05
                                                                0 0.00000e+00
          Otu05573 Otu05574
##
                                 Otu05575 Otu05576
                                                        Otu05577 Otu05578
   CSI001
                  0
                           0 0.00000e+00
                                                  0 0.00000e+00
                                                                          0
##
  CSI012
                  0
                           0 5.174912e-05
                                                  0 0.00000e+00
                                                                          0
##
##
  CSI022
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
  CSI044
                  0
                           0 0.000000e+00
                                                  0 0.00000e+00
                                                                          0
##
                  0
                             0.000000e+00
                                                    0.000000e+00
                                                                          0
   CSI055
##
  CSI065
                  0
                             0.000000e+00
                                                  0.000000e+00
                                                                          0
##
   CST076
                           0 0.00000e+00
                                                  0 0.00000e+00
##
              0tu05579
                            Otu05580 Otu05581 Otu05582 Otu05583
                                                                      0t_{11}05584
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
                                             0
                                                      0
   CSI012 0.000000e+00 0.000000e+00
                                                                0 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI055 2.151417e-05 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
                                             0
   CSI065 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                                0 2.890675e-05
##
              Otu05585 Otu05586 Otu05587 Otu05588
                                                         Otu05589
                                                                      Otu05590
   CSI001 0.000000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
                               0
                                         0
  CSI012 0.000000e+00
                               0
                                                  0 1.724971e-05 0.000000e+00
## CSI022 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 0.000000e+00
```

```
## CSI055 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 4.302833e-05
   CSI065 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
                                                    0 2.890675e-05 0.000000e+00
   CSI076 2.890675e-05
                                0
                                          0
##
           Otu05591 Otu05592 Otu05593 Otu05594 Otu05595
                                                               Otu05596 Otu05597
##
  CST001
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI022
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI044
                  0
                            0
                                      0
                                               0
                                                         0 1.97157e-05
                                                                                0
   CSI055
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                0
                            Λ
                                               0
##
  CSI065
                  \cap
                                      0
                                                         0 0.00000e+00
                                                                                0
   CSI076
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                0
##
               Otu05598
                             Otu05599 Otu05600 Otu05601
                                                               Otu05602
##
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                        0 2.345326e-05
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                              0
   CSI044 3.943140e-05 0.000000e+00
                                              0
                                                        0 0.00000e+00
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                        0 1.936275e-04
   CSI065 3.782005e-05 0.000000e+00
                                              0
                                                        0 0.00000e+00
##
   CSI076 0.000000e+00 8.672024e-05
                                              0
                                                        0 0.000000e+00
##
               Otu05603 Otu05604 Otu05605 Otu05606
                                                          Otu05607 Otu05608
  CSI001 0.000000e+00
##
                                0
                                          Λ
                                                    0 0.00000e+00
                                                                            0
  CSI012 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                            0
## CSI022 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
   CSI044 0.000000e+00
                                          0
                                0
                                                    0 0.00000e+00
                                                                            0
                                          0
                                                                            0
  CSI055 2.151417e-05
                                0
                                                    0 2.151417e-05
   CSI065 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0 8.672024e-05
                                                                            0
##
          Otu05609 Otu05610 Otu05611 Otu05612
                                                      Otu05613 Otu05614 Otu05615
## CSI001
                  0
                                                                       0
                            0
                                      0
                                               0 0.00000e+00
                                                                                 0
## CSI012
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CST044
                  0
                            0
                                      0
                                               0.0.000000e+00
                                                                       0
                                                                                 0
##
   CSI055
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                                 0
                            0
                                                                                 0
##
  CSI065
                  0
                                      0
                                               0 3.782005e-05
                                                                       0
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI076
          Otu05616 Otu05617 Otu05618
                                            Otu05619 Otu05620 Otu05621 Otu05622
##
## CSI001
                  0
                            0
                                      0 2.345326e-05
                                                             0
                                                                       0
                                                                                 0
## CSI012
                  0
                            0
                                      0 0.000000e+00
                                                             Λ
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                      0 4.303111e-05
                                                              0
                                                                                 0
                                                                       0
                  0
                            0
                                                             Λ
                                                                                 O
## CSI044
                                      0 0.000000e+00
                                                                       0
                            0
                                                             0
                                                                                 0
  CSI055
                  0
                                      0 0.000000e+00
  CSI065
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
##
   CST076
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
           Otu05623 Otu05624 Otu05625 Otu05626
                                                               Otu05628 Otu05629
##
                                                      Otu05627
## CSI001
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI012
                            0
                                                                       0
                                                                                 0
                  0
                                      0
                                               0 0.00000e+00
##
  CSI022
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
  CSI044
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
  CSI055
                  0
                            0
                                      0
                                               0 1.075708e-04
                                                                       0
                                                                                 0
##
   CSI065
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                            0
                                      0
                                                                       0
                                                                                 0
##
                  0
                                               0 0.00000e+00
##
           Otu05630 Otu05631 Otu05632 Otu05633
                                                     Otu05634 Otu05635 Otu05636
## CSI001
                  0
                            0
                                      0
                                               0.00000e+00
                                                                      0
                                                                                0
## CSI012
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                      0
                                                                                0
```

```
## CSI022
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
  CSI044
                  0
                            0
##
                                      0
                                                0 1.97157e-05
                                                                       0
                                                                                 0
##
   CSI055
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
  CSI065
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                0
##
##
   CST076
                  0
                            0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
          Otu05637 Otu05638 Otu05639
                                            Otu05640 Otu05641 Otu05642 Otu05643
##
  CSI001
                  0
                            0
                                      0 0.000000000
                                                              0
                                                                        0
                                                                                  0
## CSI012
                                                                                  0
                  0
                            0
                                        0.000000000
                                                              0
                                                                        0
##
   CSI022
                  0
                            0
                                        0.000000000
                                                              0
                                                                        0
                                                                                  0
                            0
                                                              0
                                                                                  0
##
   CSI044
                  0
                                        0.000000000
                                                                        0
   CSI055
                  0
                            0
                                        0.000000000
                                                              0
                                                                                  0
                                                                                  0
   CSI065
                  0
                            0
                                                              0
                                                                        0
##
                                        0.000000000
##
   CSI076
                  0
                            0
                                      0
                                        0.000000000
                                                              0
                                                                        0
                                                                                  0
          Otu05644
                    Otu05645
                              Otu05646
##
                                        0tu05647
                                                      Otu05648
                                                                     Otu05649
##
  CSI001
                  0
                            0
                                      0
                                                0 0.0003283456 0.000000e+00
##
   CSI012
                  0
                            0
                                      0
                                                0 0.000000000 0.000000e+00
                  0
                            0
                                                0 0.000000000 0.000000e+00
##
   CSI022
                                      0
   CSI044
                  0
                            0
                                      0
                                                0 0.000000000 0.000000e+00
  CSI055
                  0
                            0
                                                0 0.0000000000 2.151417e-05
##
                                      0
##
   CSI065
                  0
                            0
                                      0
                                                0 0.000000000 0.000000e+00
##
   CST076
                  Λ
                            0
                                      0
                                                0 0.000000000 0.000000e+00
           Otu05650
                         Otu05651 Otu05652 Otu05653 Otu05654
                                                                     Otu05655
##
## CSI001
                                          0
                                                    0
                  0.000000e+00
                                                              0.000000e+00
   CSI012
                                                    0
                    0.00000e+00
                                          0
                                                              0 0.00000e+00
                                                    0
##
  CSI022
                  0 0.000000e+00
                                          0
                                                              0 0.00000e+00
   CSI044
                  0
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                0.000000e+00
   CSI055
                    0.000000e+00
                                          0
                                                    0
                                                                2.366558e-04
##
                  0
                                          0
                                                    0
##
   CSI065
                    0.000000e+00
                                                              0
                                                                0.000000e+00
                                                    0
   CSI076
                  0 0.000000e+00
                                          0
                                                              0
                                                                0.000000e+00
##
##
          Otu05656
                    Otu05657
                                  Otu05658 Otu05659
                                                      Otu05660
                                                                Otu05661 Otu05662
##
   CSI001
                  0
                            0 0.000000000
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI012
                  0
                            0 0.0001552474
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI022
                  0
                              0.000000000
                                                    0
                                                              0
                                                                        0
                                                                                  0
                  0
                                                    0
                                                              0
                                                                                  0
##
   CSI044
                            0
                              0.000000000
                                                                        0
   CSI055
                  0
                              0.000000000
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                  0
                              0.000000000
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CST065
                            0
##
   CSI076
                  0
                            0
                              0.000000000
                                                    0
                                                              0
                                                                                  0
##
          Otu05663
                    Otu05664
                              Otu05665
                                                          Otu05667
                                                                         0±1105668
                                            Ot:1105666
   CSI001
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI012
                            0
                                      0 0.000000e+00 1.724971e-05 0.000000e+00
##
                  0
   CSI022
                            0
                                        0.000000e+00 0.000000e+00 4.303111e-05
                  0
   CSI044
                  0
                            0
                                        0.000000e+00 0.000000e+00 0.000000e+00
##
##
   CSI055
                  0
                            0
                                        0.000000e+00 0.000000e+00 0.000000e+00
                            0
##
   CSI065
                  Λ
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI076
                  0
                                      0 2.890675e-05 0.000000e+00 0.000000e+00
##
               Otu05669
                             Otu05670 Otu05671
                                                     Otu05672 Otu05673 Otu05674
   CSI001 0.000000e+00 0.000000e+00
                                               0 4.690652e-05
                                                                       0
                                                                                0
                                                                       0
   CSI012 0.000000e+00 0.000000e+00
                                               0 3.449941e-05
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                       0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                               0 0.00000e+00
                                                                       0
                                                                                 0
   CSI055 2.151417e-05 0.000000e+00
                                                                       0
                                               0.0.000000e+00
                                                                                 0
   CSI065 0.000000e+00 0.000000e+00
                                               0 0.00000e+00
                                                                       0
                                                                                0
##
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                       0
                                                                                 0
##
               Otu05675
                             Otu05676 Otu05677 Otu05678
                                                               Otu05679 Otu05680
```

```
## CSI001 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI012 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.000000e+00
                                                                                 0
   CSI022 2.151556e-05 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI044 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI055 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.000000e+00
                                                                                 0
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.00000e+00
           Otu05681 Otu05682 Otu05683 Otu05684 Otu05685 Otu05686 Otu05687
##
## CSI001
                  Λ
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI012
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                  0
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI065
                            0
                                                0
                                                                    0
##
                  0
                                      0
                                                          0
                                                                              0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu05688 Otu05689
                                   Otu05690 Otu05691 Otu05692
                                                                     Otu05693
## CSI001
                                                    0
                  0
                            0 0.000000e+00
                                                              0 2.345326e-05
##
   CSI012
                  0
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
  CSI022
                  0
                                                    0
                                                              0 0.00000e+00
##
                            0
                              0.000000e+00
##
   CSI044
                  0
                              0.000000e+00
                                                    0
                                                                0.00000e+00
##
   CSI055
                  0
                              0.000000e+00
                                                    0
                                                                0.000000e+00
   CSI065
                              0.000000e+00
                                                    0
                                                              0 0.000000e+00
##
                  0
                            0 0.000000e+00
                                                    0
##
   CSI076
                                                              0 0.00000e+00
           Otu05694 Otu05695
                              Otu05696 Otu05697 Otu05698 Otu05699 Otu05700
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                            0
                                                0
                                                          0
                                                                    0
##
   CSI044
                  0
                                      0
                                                                              0
                            0
                                                0
                                                                    0
   CSI055
                  0
                                      0
                                                          0
                                                                              0
##
##
   CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
               Otu05701 Otu05702 Otu05703 Otu05704 Otu05705 Otu05706 Otu05707
   CSI001 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI012 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI022 0.000000e+00
                                 0
                                          0
                                                    0
                                                               0
                                                                        0
                                                                                  0
   CSI044 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                                  0
                                                                        0
   CSI055 0.000000e+00
                                 0
                                          0
                                                    0
                                                               0
                                                                        0
                                                                                  0
   CSI065 0.000000e+00
                                 0
                                          0
                                                    0
                                                              Λ
                                                                        0
                                                                                  0
   CSI076 0.000000e+00
                                 0
                                                    0
                                                               0
                                                                        0
                                                                                  0
##
##
           Otu05708 Otu05709 Otu05710
                                             Otu05711 Otu05712
                                                                     Ot:1105713
                            0
                                      0 0.000000e+00
## CSI001
                  0
                                                              0 2.345326e-05
## CSI012
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.00000e+00
   CSI022
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.00000e+00
                            0
##
   CSI044
                  0
                                      0 0.000000e+00
                                                              0 0.00000e+00
                            0
  CSI055
                  0
                                      0 0.000000e+00
                                                              0 0.00000e+00
## CSI065
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
##
   CSI076
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
##
           Otu05714 Otu05715
                                   Otu05716 Otu05717
                                                           Otu05718 Otu05719
## CSI001
                  0
                            0 0.000000e+00
                                                    0 7.035977e-05
                                                                             0
##
   CSI012
                  0
                              0.000000e+00
                                                      1.724971e-05
                                                                             0
                  0
                              0.000000e+00
                                                      0.000000e+00
                                                                             0
##
   CSI022
## CSI044
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                             0
                            0 0.000000e+00
## CSI055
                  0
                                                    0 0.00000e+00
                                                                             0
## CSI065
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                             0
```

```
## CSI076
                  0
                           0 5.781349e-05
                                                   0 0.00000e+00
                                                                           0
##
          Otu05720 Otu05721 Otu05722 Otu05723 Otu05724
                                                               Otu05725 Otu05726
                                                        0 0.000000e+00
## CSI001
                  0
                           0
                                     0
                                               0
                                                                                0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
##
  CSI022
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
                           0
                                               0
                                                                                Λ
##
  CSI044
                  0
                                     0
                                                        0 0.00000e+00
                           0
  CSI055
                  0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
##
  CSI076
                  0
                           0
                                     0
                                               0
                                                        0 5.781349e-05
                                                                                O
##
               Otu05727 Otu05728
                                      Otu05729 Otu05730
                                                              Otu05731 Otu05732
  CSI001 0.000000e+00
                                0 0.000000000
                                                       0 0.00000e+00
                                                                               0
   CSI012 1.724971e-05
                                0 0.000000000
                                                       0 0.00000e+00
                                                                               0
   CSI022 0.000000e+00
                                0.000000000
                                                       0 0.000000e+00
                                                                               0
                                0 0.000000000
   CSI044 0.000000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI055 0.000000e+00
                                0 0.000000000
                                                       0.0.000000e+00
                                                                               0
   CSI065 0.000000e+00
                                0 0.000000000
                                                       0 0.00000e+00
   CSI076 0.000000e+00
                                0 0.000000000
                                                       0 0.00000e+00
                                                                               0
##
          Otu05733 Otu05734
                                  Otu05735 Otu05736 Otu05737
                                                                   Otu05738
                           0 2.345326e-05
## CST001
                  0
                                                   0
                                                            0 0.000000e+00
## CSI012
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.00000e+00
##
  CSI022
                  Ω
                           0 0.000000e+00
                                                   Ω
                                                            0 0.00000e+00
## CSI044
                  0
                           0 0.000000e+00
                                                   0
                                                             0.000000e+00
## CSI055
                                                   0
                  0
                           0 0.00000e+00
                                                             0 0.00000e+00
##
  CSI065
                  0
                             0.000000e+00
                                                   0
                                                            0 0.000000e+00
##
  CST076
                  0
                           0 0.000000e+00
                                                   0
                                                             0 0.00000e+00
##
          Otu05739 Otu05740
                                  Otu05741
                                                Otu05742 Otu05743
                                                                       Otu05744
## CSI001
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
##
   CSI012
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
  CSI022
                  0
                           0 0.000000e+00 0.000000e+00
##
                                                                 0 0.00000e+00
   CSI044
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
##
   CSI055
                  0
                           0 8.605667e-05 0.000000e+00
                                                                 0 0.000000e+00
##
   CSI065
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.000000e+00
##
   CSI076
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
               Otu05745 Otu05746 Otu05747
##
                                                Otu05748 Otu05749 Otu05750
   CSI001 0.000000e+00
                                0
                                         0 2.345326e-05
                                                                 0
                                                                           0
   CSI012 3.449941e-05
                                0
                                                                 0
                                                                           0
                                         0 3.449941e-05
   CSI022 6.454667e-05
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
  CSI044 0.000000e+00
                                0
                                         0 1.380099e-04
                                                                 0
                                                                           0
   CSI055 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
                                0
   CSI065 0.000000e+00
                                                                 0
                                                                           0
                                0
                                         0.000000e+00
   CSI076 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
          Otu05751 Otu05752 Otu05753 Otu05754 Otu05755 Otu05756
##
                                                                   0t.1105757
##
  CSI001
                  \cap
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                           0
                                               0
                                                        0
##
  CSI012
                  0
                                     0
                                                                  0
                                                                           0
  CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI044
                  0
                           0
                                                        0
                                                                  0
                                     0
                                               0
                                                                           0
##
   CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                                                                  0
##
   CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                           0
##
   CST076
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
##
          Otu05758 Otu05759
                                  Otu05760
                                               Otu05761 Otu05762 Otu05763
## CSI001
                           0 2.345326e-05 0.00000e+00
                  0
                                                                0
                                                                         0
## CSI012
                  0
                           0 0.000000e+00 0.00000e+00
                                                                0
                                                                         0
## CSI022
                  0
                           0 0.000000e+00 0.00000e+00
                                                                0
                                                                         0
## CSI044
                  0
                           0 0.000000e+00 1.97157e-05
                                                                0
                                                                         0
```

```
## CSI055
                           0 0.000000e+00 6.45425e-05
                                                               0
                                                                         0
  CSI065
                             0.000000e+00 0.00000e+00
                                                                         0
##
                  0
                                                               0
                           0 0.000000e+00 0.00000e+00
##
   CSI076
                  0
                                                               0
                                                                         0
##
          Otu05764 Otu05765
                             Otu05766
                                           Otu05767
                                                                       Otu05769
                                                         Ot:1105768
##
  CST001
                  0
                           0
                                     0 0.000000e+00 2.345326e-05 0.000000e+00
  CSI012
                           0
##
                  0
                                     0 0.000000e+00 3.449941e-05 0.000000e+00
                                     0 2.151556e-05 0.000000e+00 0.000000e+00
  CSI022
                  0
                           0
## CSI044
                  0
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI055
                  0
                           0
                                      0.000000e+00 0.000000e+00 4.302833e-05
                           Λ
##
   CSI065
                  0
                                       0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI076
                  0
                                     0 0.000000e+00 0.000000e+00 5.781349e-05
                            Otu05771 Otu05772 Otu05773 Otu05774 Otu05775
##
              Otu05770
##
   CSI001 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
                                             0
                                                                0
                                                                          0
   CSI012 0.000000e+00 0.000000e+00
                                                       0
   CSI022 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                                             0
                                                       0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI055 0.000000e+00 0.000000e+00
                                                                0
                                             0
                                                       0
                                                                          0
   CSI065 0.000000e+00 1.134602e-04
                                             0
                                                       0
                                                                0
                                                                          0
   CSI076 5.781349e-05 0.000000e+00
                                                                0
##
                                             0
                                                       0
                                                                          0
##
          Otu05776 Otu05777
                                 Otu05778 Otu05779 Otu05780 Otu05781 Otu05782
##
  CSI001
                  Ω
                           0 2.345326e-05
                                                  Λ
                                                            0
                                                                      0
                                                                               0
  CSI012
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI022
                  0
                                                                               0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
##
  CSI044
                  0
                           0
                             0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
##
  CST055
                  0
                           0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI065
                  0
                           0
                             0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI076
                  0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
                           0
                             0.000000e+00
##
          Otu05783 Otu05784
                                 Otu05785 Otu05786
                                                    Otu05787
                                                                   Otu05788
##
   CSI001
                  0
                           0 0.000000000
                                                   0
                                                            0 0.00000e+00
##
  CSI012
                  0
                           0 0.000000000
                                                   0
                                                            0 0.000000e+00
##
  CSI022
                  0
                           0 0.000000000
                                                   0
                                                            0 0.00000e+00
##
   CSI044
                  0
                           0.000000000
                                                   0
                                                            0 0.000000e+00
   CSI055
                  0
                             0.000000000
                                                   0
                                                            0 4.302833e-05
                                                   0
##
   CSI065
                  0
                           0 0.000000000
                                                            0 0.00000e+00
                  0
                           0 0.000000000
                                                   0
                                                            0 0.00000e+00
##
   CSI076
                            Otu05790 Otu05791 Otu05792
              Otu05789
##
                                                             Ot:1105793
   CSI001 0.0000000000 2.345326e-05
                                             0
                                                       0 2.345326e-05
   CSI012 0.0000000000 0.000000e+00
                                             0
                                                       0 0.00000e+00
   CSI022 0.0000000000 0.000000e+00
                                                       0 2.151556e-05
                                             0
   CSI044 0.0000000000 0.000000e+00
                                             Λ
                                                       0 0.000000e+00
   CSI055 0.0000000000 0.000000e+00
                                             0
                                                       0 0.00000e+00
   CSI065 0.0000000000 0.000000e+00
                                             0
                                                       0 0.00000e+00
##
   CSI076 0.0000000000 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                      Otu05796 Otu05797 Otu05798
##
              Otu05794 Otu05795
                                                                       Otu05799
   CSI001 2.345326e-05
                               0 2.345326e-05
                                                       0
                                                                0 0.00000e+00
   CSI012 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
   CSI022 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
   CSI044 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
   CSI055 0.000000e+00
                               0 0.000000e+00
                                                       0
                                                                0 0.000000e+00
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
##
                               0 0.000000e+00
   CSI076 5.781349e-05
                                                                0 0.000000e+00
##
                                                       0
##
          Otu05800
                        Otu05801
                                      Otu05802
                                                    Otu05803 Otu05804 Otu05805
## CSI001
                  0 4.690652e-05 2.345326e-05 2.345326e-05
                                                                     0
                                                                              0
## CSI012
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
```

```
## CSI022
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                                0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CST044
                                                                      0
                                                                                0
   CSI055
                    0.000000e+00 0.000000e+00 4.302833e-05
                                                                      0
                                                                                0
  CSI065
                    0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
##
##
   CST076
                    0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
          Otu05806
                        Otu05807 Otu05808
                                                Otu05809
##
                                                              Otu05810 Otu05811
  CSI001
                  0 0.000000e+00
                                          0 0.000000000 0.000000000
                                                                                0
  CSI012
##
                  0 3.449941e-05
                                          0 0.000000000 0.000000000
                                                                                0
##
   CSI022
                    0.000000e+00
                                          0 0.000000000 0.0000000000
                                                                                0
##
   CSI044
                    0.000000e+00
                                          0 0.000000000 0.0000000000
                                                                                0
   CSI055
                    0.000000e+00
                                          0 0.000000000 0.0000000000
                                                                                0
                                          0 0.000000000 0.0000000000
                                                                                0
##
   CSI065
                    0.000000e+00
##
   CSI076
                  0 0.000000e+00
                                          0 0.000000000 0.000000000
                                                                                0
##
          Otu05812 Otu05813 Otu05814
                                            Otu05815 Otu05816 Otu05817
                                                                         Otu05818
##
  CSI001
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                  0
##
   CSI012
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                            0
                                                             0
                                                                       0
##
   CSI022
                  0
                                     0 0.000000e+00
   CSI044
                  0
                            0
                                       0.000000e+00
                                                             0
                                                                       0
  CSI055
                  0
                            0
                                                             0
##
                                     0 0.00000e+00
                                                                       0
##
   CSI065
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
##
   CST076
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
          Otu05819
                                  Otu05821 Otu05822 Otu05823
                                                                    Otu05824
##
                    Ot:1105820
## CSI001
                                                   0
                                                             0 0.000000000
                  0
                            0 0.000000e+00
##
   CSI012
                  0
                              1.724971e-05
                                                   0
                                                               0.000000000
##
  CSI022
                  0
                             0.000000e+00
                                                   0
                                                             0 0.000000000
   CSI044
                  0
                              0.000000e+00
                                                   0
                                                               0.0000000000
   CSI055
                  0
                                                   0
##
                              0.000000e+00
                                                               0.0002151417
                                                   0
##
   CSI065
                  0
                              0.000000e+00
                                                               0.000000000
                            0 0.000000e+00
                                                   0
   CSI076
                  0
                                                             0 0.000000000
##
##
          Otu05825
                    Otu05826
                              Otu05827 Otu05828 Otu05829 Otu05830 Otu05831
##
   CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
   CSI044
                                     0
##
   CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
   CSI065
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                                     0
##
   CSI076
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
          0tu05832
                        Otu05833
                                      Otu05834
                                                    Otu05835
                                                                  Otu05836
   CSI001
                    0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI012
                    0.000000e+00 0.000000e+00 3.449941e-05 0.000000e+00
##
   CSI022
                    0.000000e+00 6.454667e-05 0.000000e+00 0.000000e+00
   CSI044
                    0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI055
                    0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                    0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI065
##
   CSI076
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
          Otu05837
                    Otu05838 Otu05839
                                            Otu05840 Otu05841
##
                                                                    0tu05842
##
   CSI001
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.00000e+00
   CSI012
##
                  0
                            0
                                     0 3.449941e-05
                                                             0 0.00000e+00
   CSI022
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.000000e+00
##
   CSI044
                  0
                            0
                                       0.000000e+00
                                                               0.000000e+00
                                       0.000000e+00
   CSI055
                  0
                            0
##
                                                               0.000000e+00
                                                             0
##
  CSI065
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.00000e+00
                                     0 0.000000e+00
##
  CSI076
                  0
                            0
                                                             0.0.000000e+00
##
          Otu05843 Otu05844 Otu05845 Otu05846 Otu05847 Otu05848 Otu05849
```

0

0

0

0

0

0

O

```
## CSI001
                            0
                                                                              0
   CSI012
                            0
##
                  0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI022
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI044
                  0
                            0
                                      Λ
                                                0
                                                          0
                                                                    0
                                                                              0
##
##
   CSI055
                   0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                          0
                                                                              0
##
   CSI065
                                      0
                                                0
                                                                    0
                   0
                            0
                                                                              0
##
   CSI076
                                       Otu05852 Otu05853
               Otu05850 Otu05851
##
                                                                Otu05854 Otu05855
##
   CSI001 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.000000e+00
                                                                                  O
   CSI012 1.724971e-05
                                 0 0.000000e+00
                                                         0 0.000000e+00
                                                                                  0
   CSI022 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                                                  0
   CSI044 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                                                  0
   CSI055 2.151417e-05
                                 0 2.151417e-05
                                                         0 0.000000e+00
                                                                                  0
   CSI065 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.000000e+00
                                                                                  0
   CSI076 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.000000e+00
                                                                                  0
##
##
           Otu05856 Otu05857
                                   Otu05858
                                                 Otu05859 Otu05860 Otu05861
  CSI001
                            0 0.000000e+00 0.000000e+00
##
                  0
                                                                   0
                                                                             0
##
   CSI012
                            0 1.724971e-05 0.000000e+00
                                                                   0
                                                                             0
   CSI022
                              0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
##
                  0
##
   CSI044
                  0
                               0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
##
   CSI055
                  0
                               0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
   CSI065
                               0.000000e+00 0.000000e+00
                                                                   0
##
                                                                             0
                            0 0.000000e+00 0.000000e+00
                                                                   0
##
   CSI076
                  \cap
                                                                             0
                               Otu05864 Otu05865 Otu05866 Otu05867
##
           Otu05862 Otu05863
                                                                      Otu05868
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                                    0
##
   CSI044
                  0
                                      0
                                                0
                                                          0
                                                                              0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI055
##
   CSI065
                   0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu05869
                         Otu05870 Otu05871 Otu05872 Otu05873 Otu05874 Otu05875
##
   CSI001
                  0 2.345326e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012
                   0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
##
                                           0
                                                     0
   CSI022
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
##
   CSI044
                                                                         0
##
   CSI055
                    4.302833e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               Λ
                                                                         0
                                                                                   0
                    0.000000e+00
                                           0
                                                               0
                                                                                   0
##
   CSI076
                                                                         0
##
                    Otu05877 Otu05878 Otu05879
           Otu05876
                                                       Otu05880 Otu05881
##
  CSI001
                  0
                            0
                                      0
                                                0 4.690652e-05
                                                                         0
## CSI012
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                  0
##
   CSI022
                  0
                            0
                                      0
                                                0 2.151556e-05
                                                                         0
                            0
##
   CSI044
                  0
                                      0
                                                0 0.000000e+00
                                                                         0
                            0
##
   CSI055
                   0
                                      0
                                                0 0.00000e+00
                                                                         0
   CSI065
                            0
                                                0 0.000000e+00
                                                                         0
##
                  0
                                      0
##
   CSI076
                            0
                                      0
                                                0 0.00000e+00
##
               Otu05882 Otu05883 Otu05884
                                                 Otu05885 Otu05886
                                                                          Otu05887
   CSI001 0.000000e+00
                                 0
                                           0 0.000000000
                                                                   0 0.00000e+00
   CSI012 3.449941e-05
                                 0
                                           0 0.000000000
                                                                   0 1.724971e-05
   CSI022 0.000000e+00
                                 0
                                             0.000000000
##
                                                                   0 0.00000e+00
   CSI044 0.000000e+00
                                 0
                                           0 0.000000000
                                                                   0 0.00000e+00
## CSI055 0.000000e+00
                                 0
                                           0 0.0001075708
                                                                   0 0.000000e+00
## CSI065 0.000000e+00
                                 0
                                           0 0.000000000
                                                                   0 0.00000e+00
```

```
## CSI076 0.000000e+00
                               0
                                         0 0.000000000
                                                                0 0.00000e+00
##
              Otu05888 Otu05889 Otu05890 Otu05891 Otu05892 Otu05893
## CSI001 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                      0
                                                            0
                                                                      0
## CSI012 1.724971e-05
                               0
                                         0
                                                   0
## CSI022 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI044 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI055 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI065 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
  CSI076 0.000000e+00
                               0
                                         0
                                                   0
                                                            Λ
                                                                      0
##
              Otu05894 Otu05895 Otu05896
                                               Otu05897
                                                             Otu05898
## CSI001 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
## CSI012 0.000000e+00
                               0
                                         0 5.174912e-05 0.000000e+00
  CSI022 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
##
              Otu05899 Otu05900
                                      Otu05901
                                                    Otu05902 Otu05903
## CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
## CSI012 0.000000e+00
                               0 1.724971e-05 0.000000e+00
                                                                     0
## CSI022 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
## CSI044 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                               0 1.290850e-04 2.151417e-05
## CSI055 1.075708e-04
                                                                     0
                               0 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00
                               0 0.000000e+00 2.890675e-05
  CSI076 0.000000e+00
                                                                     0
             Otu05904 Otu05905 Otu05906
                                              Otu05907
                                                            Otu05908
## CSI001 0.00000e+00
                              0
                                        0 0.000000000 0.000000e+00
                              0
  CSI012 0.00000e+00
                                        0 0.000000000 0.000000e+00
                              0
## CSI022 0.00000e+00
                                        0 0.000000000 0.000000e+00
  CSI044 0.00000e+00
                              0
                                        0 0.000000000 0.000000e+00
  CSI055 0.00000e+00
                              0
                                        0 0.0001721133 4.302833e-05
   CSI065 7.56401e-05
                              0
                                        0 0.000000000 0.000000e+00
   CSI076 0.00000e+00
                              0
                                        0 0.0000000000 5.781349e-05
              Otu05909 Otu05910 Otu05911 Otu05912 Otu05913 Otu05914 Otu05915
##
## CSI001 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
  CSI012 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI022 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI044 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               Λ
  CSI055 4.302833e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
  CSI065 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI076 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                               0
          Otu05916 Otu05917 Otu05918 Otu05919
                                                                  Ot:1105921
##
                                                     Ot:1105920
## CSI001
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                           0
## CSI012
                  0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
## CSI044
                  0
                           0
                                     0
## CSI055
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                  0
                           0
##
  CSI065
                                     0
                                              0 0.000000e+00 0.000000e+00
##
   CSI076
                  0
                           0
                                     0
                                              0 2.890675e-05 0.000000e+00
##
          Otu05922
                        Otu05923 Otu05924 Otu05925 Otu05926 Otu05927
## CSI001
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                         0
                                                   0
                                                            0
## CSI012
                  0 0.00000e+00
                                                                      0
## CSI022
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI044
                 0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
```

```
## CSI055
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
  CST065
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
                  0 0.000000e+00
##
   CSI076
                                          0
                                                             0
                                                                       0
                             Otu05929 Otu05930
##
               0tu05928
                                                    Otu05931 Otu05932 Otu05933
##
   CSI001 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI012 0.000000e+00 0.000000e+00
                                                                      0
                                              0 0.00000e+00
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0 6.454667e-05
                                                                      0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
                                                                      0
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                               0
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
          Otu05934 Otu05935 Otu05936
##
                                            Otu05937 Otu05938 Otu05939
##
  CSI001
                  0
                            0
                                     0 9.381303e-05
                                                             0
                                                                       0
                                     0 0.000000e+00
##
  CSI012
                  0
                            0
                                                             0
                                                                       0
  CSI022
                  0
                                     0 0.000000e+00
                                                             0
                                                                       0
##
                            0
   CSI044
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
##
                  0
                            0
                                                             0
##
   CSI055
                                     0 0.000000e+00
                                                                       0
   CSI065
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
##
                                                             0
##
   CST076
                  0
                            0
                                     0 0.00000e+00
                                                                       0
##
               0tu05940
                             Otu05941
                                           Otu05942 Otu05943 Otu05944
##
   CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
   CSI022 0.000000e+00 0.000000e+00 2.151556e-05
                                                            0
                                                                      0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                            \cap
                                                                      0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
   CSI076 2.890675e-05 2.890675e-05 0.000000e+00
                                                            0
                                                                      0
##
               Otu05945 Otu05946 Otu05947 Otu05948 Otu05949
##
                                                               Otu05950
                                                                         Otu05951
   CSI001 0.000000e+00
                                         0
                                                   0
                                                             0
##
                                0
                                                                       0
                                                                                0
   CSI012 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI065 0.000000e+00
                                                             0
                                                                                0
##
                                0
                                          0
                                                   0
                                                                       0
   CSI076 2.890675e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
               Otu05952 Otu05953 Otu05954 Otu05955
                                                     Otu05956
##
                                                               0t.1105957
## CSI001 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
  CSI012 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI022 0.000000e+00
                                          0
                                                   0
                                                             0
                                0
                                                                       0
  CSI044 0.000000e+00
                                          0
                                                   0
                                                             0
                                0
                                                                       0
   CSI055 0.000000e+00
                                          0
                                                             0
                                0
                                                   0
                                                                       0
   CSI065 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                             0
                                                                       0
                             Otu05959 Otu05960
##
                                                    Otu05961
                                                                   Otu05962
               Otu05958
   CSI001 0.0000000000 2.345326e-05
                                              0 0.000000e+00 0.000000e+00
   CSI012 0.0000000000 5.174912e-05
                                              0 0.000000e+00 1.724971e-05
   CSI022 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI044 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI055 0.0001936275 0.000000e+00
                                              0 4.302833e-05 0.000000e+00
   CSI065 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI076 0.0000000000 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
##
##
          Otu05963 Otu05964 Otu05965
                                            Otu05966 Otu05967 Otu05968
## CSI001
                  0
                            0
                                     0 0.0001641728
                                                             0
                                                                       0
## CSI012
                  0
                            0
                                     0 0.000000000
                                                             0
                                                                       0
```

```
## CSI022
                                     0 0.000000000
                                                             0
                                                                       0
                            0
                                     0.000000000
                                                             0
##
  CST044
                  0
                                                                       0
##
   CSI055
                  0
                            0
                                       0.000000000
                                                             0
                                                                       0
  CSI065
                  0
                            0
                                       0.000000000
                                                             Λ
                                                                       0
##
##
   CST076
                  0
                                     0.000000000
                                                             0
                                                                       0
##
               Otu05969
                             Otu05970 Otu05971
                                                    Otu05972 Otu05973
   CSI001 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
   CSI012 0.000000e+00 0.000000e+00
                                              0.000000e+00
                                                                      0
   CSI022 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
   CSI044 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
   CSI055 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
   CSI065 0.000000e+00 0.000000e+00
                                                                      0
                                              0 0.00000e+00
##
   CSI076 0.000000e+00 2.890675e-05
                                              0 0.000000e+00
                                                                      0
##
               Otu05974 Otu05975
                                      Otu05976 Otu05977
                                                              Otu05978
  CSI001 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000000
##
   CSI012 1.724971e-05
                                0 0.00000e+00
                                                       0 0.000000000
   CSI022 0.000000e+00
                                0 0.00000e+00
                                                       0 0.0001290933
                                0 0.000000e+00
   CSI044 0.000000e+00
                                                       0 0.000000000
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                       0 0.000000000
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                       0 0.000000000
##
   CSI076 0.000000e+00
                                0 5.781349e-05
                                                       0 0.000000000
               Otu05979 Otu05980 Otu05981 Otu05982 Otu05983 Otu05984 Otu05985
##
## CSI001 4.690652e-05
                                                   0
                                                             0
                                                                       0
                                0
                                          0
                                                                                0
   CSI012 0.000000e+00
                                                             0
                                0
                                          0
                                                   0
                                                                       0
                                                                                0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
                                          0
                                                   0
                                                             0
   CSI065 0.000000e+00
                                0
                                                                       0
                                                                                0
   CSI076 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
##
##
               Otu05986
                             Otu05987 Otu05988 Otu05989 Otu05990 Otu05991
##
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                 0
                                                                           0
                                                                 0
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                           0
   CSI055 0.000000e+00 8.605667e-05
                                              0
                                                        0
                                                                 0
                                                                           0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
##
                                                                           0
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                 0
##
          Otu05992 Otu05993 Otu05994 Otu05995 Otu05996 Otu05997
                                                                    Otu05998
## CSI001
                            0
                                     0
                                                         0
                                                                  0
                  0
                                               0
                                                                            0
  CSI012
                            0
                                               0
                                                         0
                                                                  0
##
                  0
                                     0
                                                                            0
                                                                  0
                                                                            0
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0
  CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
##
   CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
                                               0
                                                         0
                                                                            0
   CSI065
                  Λ
                                     0
                                                                  0
##
                            0
                                                                            0
##
   CSI076
                                     0
                                                                  0
               Otu05999 Otu06000 Otu06001
                                                              Otu06003 Otu06004
##
                                                Otu06002
##
   CSI001 0.000000e+00
                                0
                                          0 0.000000e+00 4.690652e-05
                                                                               0
   CSI012 0.000000e+00
                                0
                                          0 3.449941e-05 5.174912e-05
                                                                               0
   CSI022 0.000000e+00
                                0
                                           0.000000e+00 0.000000e+00
                                                                               0
   CSI044 0.000000e+00
                                0
                                           0.000000e+00 0.000000e+00
                                                                               0
   CSI055 0.000000e+00
                                0
                                           0.000000e+00 0.000000e+00
##
                                                                               0
   CSI065 0.000000e+00
                                0
                                          0 3.782005e-05 0.000000e+00
                                                                               0
##
  CSI076 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                               0
##
               Otu06005 Otu06006 Otu06007
                                                Otu06008 Otu06009 Otu06010
```

```
## CSI001 0.0000000000
                                          0 2.345326e-05
                                                                  0
                                                                            0
  CSI012 0.0000000000
                                          0 0.00000e+00
                                                                  0
                                0
                                                                            0
   CSI022 0.0000000000
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CSI044 0.0000000000
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI055 0.0000000000
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
   CSI065 0.0004160206
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
   CSI076 0.0000000000
                                          0 0.00000e+00
                                                                  0
##
           Otu06011 Otu06012
                                  Otu06013 Otu06014 Otu06015 Otu06016 Otu06017
## CSI001
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI012
                                                             0
                                                                                 0
                  0
                            0 0.000000e+00
                                                    0
                                                                       0
## CSI022
                  0
                            0 6.454667e-05
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI044
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                            0 0.00000e+00
##
  CSI055
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI065
##
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI076
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
##
           Otu06018
                         Otu06019 Otu06020
                                                Otu06021 Otu06022 Otu06023
## CSI001
                  0 0.000000e+00
                                                                  0
                                          0 0.00000e+00
                                                                            0
   CSI012
                  0 1.724971e-05
                                          0 1.724971e-05
                                                                  0
                                                                            0
                                          0 0.000000e+00
  CSI022
                  0 0.000000e+00
                                                                  0
                                                                            0
##
##
  CSI044
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
  CSI055
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI065
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                  0
                                                                  0
##
  CSI076
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                            0
          Otu06024 Otu06025 Otu06026
                                            Otu06027
##
                                                          Otu06028
                                                                        Ot:1106029
## CSI001
                  0
                            0
                                     0 0.000000e+00 2.345326e-05 1.876261e-04
  CSI012
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI022
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
                            0
                                     0 0.000000e+00 3.943140e-05 0.000000e+00
##
   CSI044
                  0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055
                  0
                            0
##
##
  CSI065
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 3.782005e-05
##
  CSI076
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
               Otu06030 Otu06031 Otu06032 Otu06033 Otu06034 Otu06035 Otu06036
   CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI012 3.449941e-05
                                0
                                          0
                                                             0
                                                                       0
                                                                                 0
                                                    0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
  CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                             Λ
                                                                       0
                                                                                 0
  CSI076 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
                                               Otu06040 Otu06041 Otu06042
##
           Otu06037 Otu06038
                                 Otu06039
                            0 0.00000e+00 7.035977e-05
## CSI001
                  0
## CSI012
                  0
                            0 0.00000e+00 0.000000e+00
                                                                 0
                                                                          0
  CSI022
                  0
                            0 0.00000e+00 0.000000e+00
                                                                 0
                                                                          0
                  0
                                                                 0
                                                                          0
##
  CSI044
                            0 1.97157e-05 0.000000e+00
                            0 0.00000e+00 0.000000e+00
  CSI055
                  0
                                                                 0
                                                                          0
## CSI065
                            0 0.00000e+00 0.000000e+00
                                                                 0
                                                                          0
                  0
##
  CSI076
                  0
                            0 0.00000e+00 0.000000e+00
                                                                 0
               Otu06043 Otu06044 Otu06045 Otu06046 Otu06047 Otu06048 Otu06049
##
  CSI001 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI012 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI044 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI055 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI065 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
```

```
## CSI076 0.0000000000
                                0
                                                              0
                                                                                 0
##
          Otu06050 Otu06051 Otu06052
                                          Otu06053 Otu06054 Otu06055
## CSI001
                            0
                                     0 0.000000000
                                                              0
                                                                       0
## CSI012
                                      0 0.000000000
                            0
                                                              0
                                                                       0
                  0
## CSI022
                  0
                            0
                                      0 0.000000000
                                                              0
                                                                       0
## CSI044
                  0
                            0
                                      0 0.000000000
                                                              Λ
                                                                       0
## CSI055
                  0
                            0
                                                              0
                                      0 0.0001075708
## CSI065
                  0
                            0
                                     0 0.000000000
                                                              0
                                                                       0
## CSI076
                  0
                            0
                                      0 0.000000000
                                                              0
##
               Otu06056 Otu06057 Otu06058 Otu06059 Otu06060 Otu06061 Otu06062
## CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
## CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI044 0.000000e+00
                                                              0
                                0
                                          0
                                                    0
                                                                                 0
## CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI065 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI076 8.672024e-05
                                0
                                          0
                                                    0
                                                              0
                                                                       0
##
           Otu06063 Otu06064 Otu06065 Otu06066 Otu06067 Otu06068 Otu06069
## CST001
                  0
                            0
                                     0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI022
                  Ω
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI044
                                                                             0
## CSI055
                  Λ
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI065
                            0
## CSI076
                  0
                            0
                                      0
                                                0
                                                         \cap
                                                                   0
          Otu06070 Otu06071 Otu06072 Otu06073 Otu06074 Otu06075 Otu06076
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI012
                            0
                                                0
                                                         0
                  0
                                      0
                                                                   0
                                                                             0
## CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI055
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI065
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                                                                   0
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                             0
                                                      Otu06081 Otu06082 Otu06083
          Otu06077 Otu06078 Otu06079 Otu06080
##
## CSI001
                  0
                            0
                                     0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
## CSI012
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                                 0
## CSI044
                  Ω
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 Λ
## CSI055
                  0
                            0
                                                0 0.00000e+00
## CSI065
                  0
                            0
                                      0
                                                0 0.00000e+00
                            0
## CSI076
                  0
                                      0
                                                0 0.00000e+00
##
          Otu06084 Otu06085 Otu06086 Otu06087 Otu06088
                                                               Otu06089 Otu06090
                                                         0 2.345326e-05
## CSI001
                  0
                            0
                                      0
                                                0
                                                                                 0
                            0
                                                0
                                                                                 0
## CSI012
                  0
                                      0
                                                         0 5.174912e-05
## CSI022
                            0
                                                         0 0.000000e+00
                  0
                                      0
                                                0
                                                                                 0
## CSI044
                  0
                            0
                                      0
                                                0
                                                                                 0
                                                         0 0.00000e+00
## CSI055
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
                            0
                                                0
## CSI065
                  0
                                      0
                                                         0 0.000000e+00
                                                                                 0
                                                         0 0.000000e+00
   CST076
                  0
                            0
                                      0
                                                0
                                                                                 0
##
          Otu06091 Otu06092
                                  Otu06093 Otu06094
                                                          Otu06095 Otu06096
## CSI001
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00
                                                                            0
## CSI012
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                            0
                                                    0 0.000000e+00
## CSI022
                  0
                            0 1.075778e-04
                                                                            0
## CSI044
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00
                                                                            0
```

```
## CSI055
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                            0
## CSI065
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
                  0
   CSI076
                                                    0 0.00000e+00
##
                  0
                            0 0.00000e+00
                                                                            0
##
          Otu06097 Otu06098
                              Otu06099 Otu06100
                                                      Otu06101 Otu06102 Otu06103
##
  CSI001
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
  CSI012
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
##
                  0
                            0
                                                                                 0
## CSI022
                  0
                                      0
                                               0 0.00000e+00
                                                                       0
                                               0 0.000000e+00
## CSI044
                  0
                            0
                                      0
                                                                       0
                                                                                 0
##
   CSI055
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                                 O
                  0
                            0
                                      0
                                                                       Λ
                                                                                 0
##
   CSI065
                                               0 0.00000e+00
   CSI076
                  0
                            0
                                      0
                                               0 2.890675e-05
                                                                                 0
              Otu06104 Otu06105 Otu06106 Otu06107 Otu06108
##
                                                                   Otu06109
##
   CSI001 0.00000e+00
                               0
                                         0
                                                   0
                                                             0 0.000000e+00
                               0
                                         0
                                                   0
   CSI012 0.00000e+00
                                                             0 0.00000e+00
   CSI022 0.00000e+00
                               0
                                                   0
                                                             0 0.000000e+00
                                         0
   CSI044 1.97157e-05
                               0
                                         0
                                                   0
                                                             0 0.00000e+00
                               0
                                                   0
   CSI055 0.00000e+00
                                         0
                                                             0 0.00000e+00
   CSI065 0.00000e+00
                               0
                                                   0
                                                             0 0.000000e+00
                                                   0
##
   CST076 0.00000e+00
                               0
                                         0
                                                             0.0.000000e+00
##
          Otu06110
                         Otu06111 Otu06112 Otu06113 Otu06114 Otu06115 Otu06116
##
  CSI001
                  0 0.000000000
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI012
                  0 0.0001897468
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI022
                                          0
                                                    0
                                                              0
                                                                                 0
                  0 0.000000000
                                                                       0
                                          0
                                                    0
                                                                                 0
  CSI044
                  0 0.000000000
                                                              0
                                          0
                                                    0
                                                              0
                                                                                 0
##
  CSI055
                  0 0.000000000
                                                                       0
   CSI065
                  0 0.000000000
                                          0
                                                    0
                                                              0
                                                                                 0
   CSI076
                  0 0.000000000
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
          Otu06117 Otu06118 Otu06119 Otu06120 Otu06121 Otu06122 Otu06123
##
##
                                               0
                                                         0
                                                                   0
  CSI001
                  0
                            0
                                      0
                                                                             0
  CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI022
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI044
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI055
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI065
                  0
                                      0
   CSI076
                  0
                            0
                                      0
                                               0
                                                         0
##
               Otu06124 Otu06125 Otu06126 Otu06127 Otu06128
##
                                                                    Ot:1106129
  CSI001 0.0000000000
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
  CSI012 0.0000000000
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
   CSI022 0.0001075778
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
  CSI044 0.0000000000
                                0
                                          0
                                                    0
                                                              0.000000e+00
   CSI055 0.0000000000
                                0
                                          0
                                                    0
                                                              0 2.151417e-05
   CSI065 0.0000000000
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
                                          0
   CSI076 0.0000000000
                                0
                                                    0
                                                              0
                                                                0.00000e+00
                         Otu06131 Otu06132 Otu06133 Otu06134
##
          Otu06130
                                                                    Otu06135
## CSI001
                  0 0.00000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
## CSI012
                                          0
                                                    0
                  0 1.724971e-05
                                                              0 0.00000e+00
  CSI022
                  0 0.00000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
                                          0
                                                    0
   CSI044
                  0 0.000000e+00
                                                              0 0.00000e+00
   CSI055
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 4.302833e-05
##
   CSI065
                    0.000000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
                  0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
##
                                          0
##
          Otu06136 Otu06137 Otu06138
                                            Otu06139
                                                          Otu06140 Otu06141
## CSI001
                                      0 4.690652e-05 4.690652e-05
                  0
                            0
                                                                            0
## CSI012
                  0
                            0
                                      0 0.000000e+00 3.449941e-05
                                                                            0
```

```
## CSI022
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
## CSI044
  CSI055
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
  CSI065
                  0
                            0
                                        0.000000e+00 0.000000e+00
                                                                            0
##
##
   CST076
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
           Otu06142 Otu06143 Otu06144 Otu06145 Otu06146 Otu06147 Otu06148
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI012
                                                                    0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                             0
##
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
                                                0
                                                          0
                                                                    0
##
  CSI044
                  0
                                      0
                                                                             0
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI065
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
           Otu06149
                    Otu06150
                              Otu06151 Otu06152
                                                      Otu06153
                                                                     Otu06154
## CSI001
                  0
                            0
                                                0 0.000000e+00 2.345326e-05
                                      0
##
   CSI012
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
  CSI022
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
   CSI044
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                                                0 0.000000e+00 0.000000e+00
  CSI055
                  0
                            0
##
                                      0
##
  CSI065
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CST076
                  Λ
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
           Otu06155
                    Otu06156
                              Otu06157 Otu06158
##
                                                  Ot:1106159
                                                                Ot.1106160
## CSI001
                                                0
                  0
                            0
                                      0
                                                          0.000000e+00
   CSI012
                            0
                                                0
##
                  0
                                      0
                                                          0 0.00000e+00
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0 2.151556e-05
  CSI044
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
  CSI055
                  0
                            0
                                      0
                                                0
##
                                                          0 0.00000e+00
                            0
##
   CSI065
                  0
                                      0
                                                0
                                                          0 0.00000e+00
                            0
   CSI076
                                      0
                                                          0 0.000000e+00
##
                  0
##
               Otu06161 Otu06162 Otu06163
                                                 Otu06164
                                                               Otu06165 Otu06166
##
   CSI001 4.690652e-05
                                0
                                          0 2.345326e-05 0.000000e+00
                                                                                 0
   CSI012 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
   CSI022 0.000000e+00
                                0
                                          0 0.000000e+00 2.151556e-05
                                                                                 0
                                0
   CSI044 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
   CSI055 4.302833e-05
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
   CSI065 0.000000e+00
                                0
                                          0 0.000000e+00 7.564010e-05
##
                                                                                 0
##
   CSI076 0.000000e+00
                                0
                                          0 0.000000e+00 5.781349e-05
##
           Otu06167 Otu06168 Otu06169 Otu06170 Otu06171 Otu06172 Otu06173
## CSI001
                  0
                            0
                                      0
                                                          0
                                                                             0
                                                0
                                                                    0
  CSI012
                            0
                                                0
                                                          0
                                                                    0
                                                                             0
##
                  0
                                      0
  CSI022
                            0
                                                          0
                                                                    0
                                                                             0
                  0
                                      0
                                                0
  CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
                            0
##
   CSI055
                  0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
                                                0
                                                                    0
                                                                             0
   CSI065
                  0
                                      Λ
                                                          0
##
                            0
##
   CSI076
                  0
                                                          0
                                                                             0
                                                     Otu06177
               Otu06174 Otu06175
##
                                       Otu06176
                                                                    Otu06178
   CSI001 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00
                                0 0.000000e+00 5.174912e-05 0.000000e+00
   CSI022 0.000000e+00
                                0 0.000000e+00 0.000000e+00 2.151556e-05
   CSI044 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                0 0.000000e+00 7.564010e-05 0.000000e+00
##
  CSI076 2.890675e-05
                                0 0.000000e+00 0.000000e+00 0.000000e+00
##
           Otu06179 Otu06180 Otu06181 Otu06182
                                                      Otu06183
                                                                     Otu06184
```

```
## CSI001
                  0
                            0
                                      0
                                                0 9.381303e-05 2.345326e-05
  CSI012
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI022
                                                0 0.000000e+00 0.000000e+00
                  0
                            0
                                      0
                            0
   CSI044
                  0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
##
   CSI055
                  0
                            0
                                      0
                                                  0.000000e+00 0.000000e+00
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI065
                   0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI076
                                        Otu06188 Otu06189 Otu06190 Otu06191
                    Otu06186
                              Otu06187
##
           Otu06185
##
   CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI012
                  0
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                                                0
                                                          0
                                                                    0
   CSI044
                  0
                            0
                                      0
                                                                              0
##
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI065
                   0
                                      0
##
   CSI076
                   0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
               Otu06192 Otu06193 Otu06194 Otu06195
                                                       Otu06196
                                                                     Otu06197
   CSI001 0.000000e+00
                                                     0
##
                                 0
                                           0
                                                               0 1.172663e-04
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                                 0.00000e+00
   CSI055 4.302833e-05
                                 0
                                           0
                                                     0
                                                                 0.000000e+00
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                                 0.000000e+00
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                 0.000000e+00
##
           Otu06198
                         Otu06199 Otu06200
                                            Otu06201
##
                                                       Otu06202
                                                                     Otu06203
## CSI001
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI012
                  0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI022
                  0 0.00000e+00
                                           0
                                                     0
                                                                 0.000000e+00
##
                                           0
                                                     0
##
   CSI044
                   0 0.000000e+00
                                                               0 0.00000e+00
                                           0
                                                     0
   CSI055
                   0 0.000000e+00
                                                               0 2.151417e-05
##
   CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
##
   CSI076
                  0 5.781349e-05
                                           0
                                                     0
                                                               0 0.00000e+00
##
           Otu06204
                    Otu06205 Otu06206 Otu06207 Otu06208 Otu06209 Otu06210
##
  CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI044
                                      0
##
  CSI055
                   0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
  CSI065
                  Λ
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                   0
                            0
                                                          0
                                                                    0
                                                                              0
##
   CSI076
##
           Otu06211
                         Otu06212 Otu06213
                                                 Otu06214 Otu06215 Otu06216
                  0 0.000000e+00
                                           0 0.000000e+00
  CSI001
                                                                   0
                                                                             0
## CSI012
                    0.000000e+00
                                           0 0.00000e+00
                                                                   0
                                                                             0
                  0
                                                                   0
   CSI022
                    0.000000e+00
                                           0 0.00000e+00
                                                                             0
                                                                   0
                                                                             0
##
   CSI044
                    0.000000e+00
                                           0 1.971570e-04
                                           0 0.000000e+00
                                                                   0
   CSI055
                    0.000000e+00
                                                                             0
## CSI065
                                                                   0
                    0.000000e+00
                                             0.000000e+00
                                                                             0
                  0
                                           0
##
   CSI076
                  0
                    0.000000e+00
                                           0
                                            0.000000e+00
                                                                             0
                                            Otu06220 Otu06221
##
           Otu06217
                         Otu06218 Otu06219
                                                                     Otu06222
                   0 0.000000e+00
## CSI001
                                           0
                                                     0
                                                               0 7.035977e-05
##
   CSI012
                   0 5.174912e-05
                                           0
                                                     0
                                                                 0.000000e+00
   CSI022
                    0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
##
## CSI044
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
## CSI055
                  0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
## CSI065
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
```

```
## CSI076
                  0 0.00000e+00
                                         0
                                                 0
                                                            0 0.00000e+00
##
          Otu06223 Otu06224 Otu06225 Otu06226 Otu06227
                                                              Otu06228 Otu06229
## CSI001
                  0
                           0
                                     0
                                              0
                                                       0 0.000000e+00
                                                                               0
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0 5.174912e-05
                                                                               0
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
## CSI044
                           0
                                     0
  CSI055
                  0
                                              0
                                                        0 0.00000e+00
## CSI065
                  0
                           0
                                     0
                                              0
                                                       0 0.000000e+00
                                                                               0
##
  CSI076
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               Λ
              Otu06230 Otu06231
##
                                     Otu06232 Otu06233 Otu06234 Otu06235
  CSI001 0.000000e+00
                               0 1.407195e-04
                                                      0
                                                                0
                                                                          0
  CSI012 0.000000e+00
                                                      0
                                                                0
                                                                          0
                               0 0.00000e+00
   CSI022 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                                0
                                                                          0
   CSI044 0.000000e+00
                                                                0
                               0 0.00000e+00
                                                      0
                                                                          0
   CSI055 0.000000e+00
                                                      0
                                                                0
                                                                          0
                               0 0.00000e+00
   CSI065 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0
                                                                          0
                                                      0
                                                                0
                                                                          0
   CSI076 0.000000e+00
                               0 0.00000e+00
##
          Otu06236 Otu06237 Otu06238 Otu06239
                                                    Otu06240 Otu06241 Otu06242
## CST001
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI012
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI022
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI044
                  0
                           0
                                              0 0.000000e+00
                                                                               0
                                     0
## CSI055
                           0
                                                                               Λ
                  0
                                     0
                                              0 0.00000e+00
                                                                     0
                           0
## CSI065
                  0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
                           0
## CSI076
                  0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
##
          Otu06243
                        Otu06244 Otu06245 Otu06246
                                                        Otu06247 Otu06248
                                         0
                                                  0 0.000000e+00
                                                                          0
## CSI001
                  0 2.345326e-05
                                         0
  CSI012
                  0 1.724971e-05
                                                  0 3.449941e-05
                                                                          0
  CSI022
                  0 0.000000e+00
                                         0
                                                  0 0.000000e+00
                                                                          0
##
   CSI044
                  0 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
##
   CSI055
                  0 0.00000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
##
   CSI065
                  0 0.000000e+00
                                         0
                                                  0 0.000000e+00
                                                                          0
##
   CSI076
                  0 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
                                     Otu06251 Otu06252
##
              Otu06249 Otu06250
                                                             Otu06253 Otu06254
   CSI001 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
   CSI012 1.724971e-05
                               0 0.000000e+00
                                                      0 1.724971e-05
                                                                              0
   CSI022 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000e+00
                                                                              0
  CSI044 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000e+00
                                                                              0
   CSI055 0.000000e+00
                               0 1.075708e-04
                                                      0 0.000000e+00
   CSI065 0.000000e+00
                                                      0 0.000000e+00
                               0 0.00000e+00
                                                                              0
   CSI076 0.000000e+00
                               0 0.00000e+00
                                                      0 0.000000e+00
          Otu06255 Otu06256
                                 Otu06257
                                              Otu06258 Otu06259
##
                                                                     Ot:1106260
                           0 0.000000e+00 0.000000000
## CSI001
                 0
                                                               0 0.000000000
## CSI012
                  0
                           0 3.449941e-05 0.000000000
                                                               0 0.000000000
## CSI022
                  0
                           0 0.000000e+00 0.000000000
                                                               0 0.000000000
## CSI044
                  0
                           0 0.000000e+00 0.000000000
                                                               0 0.000000000
##
  CSI055
                  0
                           0 0.000000e+00 0.000000000
                                                               0 0.000000000
##
   CSI065
                  0
                           0 0.000000e+00 0.000000000
                                                               0 0.000000000
##
   CST076
                 0
                           0 0.000000e+00 0.000231254
                                                               0.0.0001445337
##
          Otu06261 Otu06262 Otu06263 Otu06264 Otu06265
                                                              Otu06266 Otu06267
                                                        0 0.000000e+00
## CSI001
                           0
                                                                               0
                  0
                                     0
                                              0
                           0
## CSI012
                  0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
## CSI022
                  0
                           0
                                     0
                                              0
                                                       0.000000e+00
                                                                               0
## CSI044
                  0
                           0
                                     0
                                              0
                                                       0 0.000000e+00
                                                                               0
```

```
## CSI055
                            0
                                                         0 0.00000e+00
## CSI065
                                               0
                                                         0 0.00000e+00
                                                                                0
                  0
                            0
                                     0
##
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
          Otu06268 Otu06269 Otu06270 Otu06271 Otu06272 Otu06273 Otu06274
##
  CST001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
  CSI012
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                  0
                                     0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
                            0
                                               Λ
                                                         0
                                                                   0
##
   CSI065
                  0
                                     0
                                                                            0
   CSI076
                  0
                            0
                                     0
                                                         0
                                                                   0
                                                                            0
                                                Otu06278 Otu06279 Otu06280
##
          Otu06275
                        Otu06276 Otu06277
##
   CSI001
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                 0
                                                                           0
                                          0 0.00000e+00
                                                                 0
##
  CSI012
                  0 5.174912e-05
                                                                           0
  CSI022
                  0 2.151556e-05
                                          0 0.000000e+00
                                                                 0
                                                                           0
##
   CSI044
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                 0
                                                                           0
                                                                 0
##
   CSI055
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                           0
   CSI065
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                 0
                                                                           0
##
                                                                 0
##
   CST076
                  0 0.00000e+00
                                          0 0.000000e+00
                                                                           0
##
          Otu06281 Otu06282 Otu06283
                                            Otu06284 Otu06285 Otu06286 Otu06287
##
  CSI001
                  \cap
                            0
                                     0 7.035977e-05
                                                             Λ
                                                                       0
                                                                                Λ
## CSI012
                            0
                                     0 1.724971e-05
                                                             0
                                                                       0
                                                                                 0
## CSI022
                                                             0
                                                                                0
                  0
                            0
                                     0 0.00000e+00
                                                                       0
                            0
##
  CSI044
                  0
                                     0 0.00000e+00
                                                             0
                                                                                 0
                            0
                                                             0
##
  CST055
                  0
                                     0 0.00000e+00
                                                                       0
                                                                                 0
   CSI065
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                                 0
##
   CSI076
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                                0
##
          Otu06288
                        Otu06289 Otu06290 Otu06291
                                                          Otu06292
                                                                        Otu06293
                                                   0 2.345326e-05 0.000000e+00
##
   CSI001
                  0 0.00000e+00
                                         0
  CSI012
                  0 0.00000e+00
                                         0
                                                   0 3.449941e-05 1.724971e-05
##
  CSI022
                  0 2.151556e-05
                                         0
                                                   0 0.000000e+00 0.000000e+00
##
   CSI044
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI055
                  0 0.000000e+00
                                          0
                                                     0.000000e+00 0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
   CSI065
                  0 0.00000e+00
                                         0
##
                  0 0.00000e+00
                                         0
                                                     0.000000e+00 0.000000e+00
   CSI076
##
               Otu06294 Otu06295 Otu06296 Otu06297
                                                          Otu06298 Otu06299
  CSI001 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
  CSI012 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
  CSI044 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
                                0
   CSI055 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI065 0.000000e+00
                                0
                                         0
                                                   0 3.782005e-05
                                                                           0
   CSI076 0.000000e+00
                                0
                                         0
                                                   0 2.890675e-05
                                                                           0
                                                Otu06303 Otu06304 Otu06305
##
               Otu06300 Otu06301 Otu06302
   CSI001 2.345326e-05
                                0
                                          0 0.00000e+00
                                                                 0
   CSI012 1.724971e-05
                                0
                                                                 0
                                                                           0
                                          0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
                                0
                                                                 0
                                                                           0
   CSI044 0.000000e+00
                                          0 0.00000e+00
   CSI055 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
   CSI065 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
                                0
                                                                 0
##
   CSI076 0.000000e+00
                                          0 0.00000e+00
                                                                           0
##
          Otu06306 Otu06307 Otu06308 Otu06309 Otu06310 Otu06311
                                                                         Otu06312
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 7.035977e-05
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
```

```
## CSI022
                  0
                            0
                                                                    0 0.00000e+00
  CSI044
                  0
                            0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
                                      0
   CSI055
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
  CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    Ω
                                                                     0.000000e+00
##
##
   CST076
                  0
                            0
                                                0
                                                          0
                                                                    0 0.000000e+00
           Otu06313 Otu06314
                                   Otu06315 Otu06316 Otu06317 Otu06318 Otu06319
##
## CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
## CSI012
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI022
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                    0
                                                              0
                                                                                  0
##
   CSI044
                  0
                              0.000000e+00
                                                                        0
   CSI055
                  0
                            0 2.151417e-05
                                                    0
                                                              0
                                                                                  0
                                                                                  0
   CSI065
                  0
                                                    0
                                                              0
                                                                        0
##
                            0 0.000000e+00
##
   CSI076
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
                         Otu06321 Otu06322
                                                 Otu06323 Otu06324 Otu06325
##
           Otu06320
## CSI001
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                   0
                                                                             0
##
   CSI012
                    1.724971e-05
                                          0 0.00000e+00
                                                                   0
                                                                             0
                                                                   0
                                                                             0
##
   CSI022
                  0 0.000000e+00
                                          0 0.00000e+00
   CSI044
                    0.000000e+00
                                          0 0.00000e+00
                                                                   0
                                                                             0
   CSI055
                                                                   0
                                                                             0
##
                  0 0.00000e+00
                                          0 0.00000e+00
##
   CSI065
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                   0
                                                                             0
##
   CST076
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                   0
                                                                             0
##
               Otu06326 Otu06327 Otu06328 Otu06329 Otu06330 Otu06331 Otu06332
  CSI001 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                                 0
   CSI012 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI022 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI044 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI055 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
                                          0
                                                    0
                                                              0
                                                                                  0
   CSI065 0.000000e+00
                                                                        0
                                                    0
                                                              0
                                                                                  0
   CSI076 0.000000e+00
                                 0
                                          0
                                                                        0
##
##
           Otu06333
                         Otu06334 Otu06335
                                            Otu06336
                                                      Otu06337
                                                                     Otu06338
## CSI001
                  0 0.00000e+00
                                          0
                                                    0
                                                              0 4.690652e-05
##
   CSI012
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 3.449941e-05
   CSI022
                  0 0.000000e+00
                                          0
                                                    0
                                                                0.000000e+00
                                          0
                                                    0
##
   CSI044
                  0 0.000000e+00
                                                                0.000000e+00
   CSI055
                    0.000000e+00
                                          0
                                                    0
                                                                0.000000e+00
##
                    0.000000e+00
                                          0
                                                    0
                                                                0.000000e+00
##
   CSI065
##
   CSI076
                  0 5.781349e-05
                                          0
                                                    0
                                                              0 0.00000e+00
##
           Otu06339 Otu06340
                                   Otu06341 Otu06342
                                                      Otu06343
                                                                Otu06344
## CSI001
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
   CSI012
                  0
                                                    0
                                                              0
                                                                        0
##
                            0 0.000000e+00
   CSI022
                                                    0
                                                              0
                                                                        0
                  0
                              0.000000e+00
   CSI044
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
##
                            0
                                                    0
##
   CSI055
                  0
                              0.000000e+00
                                                              0
                                                                        0
                                                    0
                                                              0
                                                                        0
##
   CSI065
                  Λ
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
##
   CSI076
                            0 0.00000e+00
##
               Otu06345 Otu06346
                                       Otu06347 Otu06348 Otu06349 Otu06350
   CSI001 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
                                                                             0
   CSI012 0.000000e+00
                                 0 0.00000e+00
                                                         0
   CSI022 0.000000e+00
                                 0 0.000000e+00
                                                         0
                                                                   0
                                                                             0
   CSI044 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI055 0.000000e+00
                                                         0
                                                                   0
                                                                             0
                                 0 0.00000e+00
                                                                   0
   CSI065 0.000000e+00
                                 0 3.782005e-05
                                                         0
                                                                             0
##
   CSI076 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
##
           Otu06351 Otu06352 Otu06353 Otu06354
                                                       Otu06355
                                                                     Otu06356
```

```
## CSI001
                                               0 0.000000e+00 0.000000e+00
## CSI012
                  0
                                               0 0.000000e+00 3.449941e-05
                            0
                                      0
  CSI022
                  0
                            0
                                               0 0.000000e+00 0.000000e+00
  CSI044
                  0
                            0
                                      Λ
                                               0 0.000000e+00 0.000000e+00
##
##
  CSI055
                  0
                            0
                                               0 0.000000e+00 0.000000e+00
                            0
                                               0 0.000000e+00 0.000000e+00
##
  CSI065
                  \cap
                                      0
                            0
                                               0 0.000000e+00 0.000000e+00
##
   CSI076
                  0
                                      0
##
          Otu06357
                         Otu06358 Otu06359
                                                Otu06360
                                                              Otu06361 Otu06362
## CSI001
                  0 0.000000000
                                          0 0.000000e+00 0.000000e+00
  CSI012
                  0 0.0000000000
                                          0 0.000000e+00 0.000000e+00
                                                                                0
  CSI022
                  0.0000000000
                                          0 2.151556e-05 0.000000e+00
                                                                                0
  CSI044
                                          0 0.000000e+00 0.000000e+00
##
                  0 0.000000000
                                                                                0
##
   CSI055
                  0.0000000000
                                          0 2.151417e-05 2.151417e-05
                                                                                0
                  0.000000000
                                          0 0.000000e+00 0.000000e+00
##
   CSI065
                                                                                0
   CSI076
                  0 0.0000000000
                                          0 0.000000e+00 2.890675e-05
                                                                                0
##
##
           Otu06363 Otu06364 Otu06365 Otu06366 Otu06367
                                                               Otu06368 Otu06369
## CSI001
                                               0
                  0
                            0
                                     0
                                                         0 0.00000e+00
                                                                                 0
##
  CSI012
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
  CSI022
                  0
                                               0
                                                         0 0.000000e+00
                                                                                 0
##
                            0
                                     0
##
  CSI044
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
  CSI055
                  0
                            0
                                      0
                                               0
                                                         0 2.151417e-05
                                                                                 0
   CSI065
                            0
                                                         0 0.000000e+00
                                                                                 0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
  CSI076
                  0
                                                                                 0
               Otu06370 Otu06371 Otu06372 Otu06373 Otu06374
##
                                                                    Otu06375
  CSI001 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
   CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 1.724971e-05
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 4.303111e-05
                                          0
                                                    0
   CSI044 0.000000e+00
                                0
                                                             0 0.00000e+00
   CSI055 6.454250e-05
                                0
                                          0
                                                    0
                                                             0 0.000000e+00
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
##
           Otu06376
                         Otu06377 Otu06378 Otu06379 Otu06380
                                                               Otu06381 Otu06382
## CSI001
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI012
                  0 0.000000e+00
                                          0
                                                             0
                                                                       0
                                                                                 0
##
                                                    0
   CSI022
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                                 0
##
  CSI044
                  0 0.00000e+00
                                                                       0
   CSI055
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                 0
  CSI065
                  0 0.000000e+00
                                          0
                                                    0
                                                             Λ
                                                                       0
                                                                                 0
##
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI076
                                               Otu06386 Otu06387 Otu06388
##
             Otu06383 Otu06384 Otu06385
  CSI001 0.000000000
                               0
                                         0 0.00000e+00
                                                                 0
  CSI012 0.000000000
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI022 0.000000000
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                               0
                                                                          0
   CSI044 0.000000000
                                         0 0.000000e+00
                                                                 0
                               0
   CSI055 0.000000000
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI065 0.000000000
                               0
                                         0 0.000000e+00
                                                                 0
                                                                          0
##
   CSI076 0.000115627
                               0
                                         0 0.00000e+00
                                                                 0
           Otu06389 Otu06390 Otu06391 Otu06392 Otu06393 Otu06394 Otu06395
##
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                            0
```

```
## CSI076
                  0
                           0
                                     0
##
          Otu06396 Otu06397 Otu06398 Otu06399 Otu06400 Otu06401
                                                                        Ot:1106402
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 3.449941e-05
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                  0
                           0
                                               0
                                                                  0 0.000000e+00
##
  CSI044
                                     0
                                                        0
                           0
                                               0
  CSI055
                  0
                                     0
                                                        0
                                                                  0 0.00000e+00
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
##
   CSI076
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
##
          Otu06403 Otu06404
                             Otu06405 Otu06406 Otu06407 Otu06408
                                                                        Otu06409
  CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
  CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                                                                  0 0.00000e+00
##
  CSI044
                  0
                           0
                                     0
                                               0
                                                        0
  CSI055
                  0
                           0
                                     0
                                               0
                                                        0
##
                                                                  0.0.000000e+00
##
  CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
                  0
                           0
                                     0
                                               0
                                                        0
##
   CST076
                                                                  0 2.890675e-05
##
          Otu06410 Otu06411 Otu06412 Otu06413
                                                     Otu06414 Otu06415
## CSI001
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
## CSI012
                  0
                           0
                                     0
                                               0 1.724971e-05
                                                                      0
##
  CSI022
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
  CSI044
                  0
                           0
                                               0 0.00000e+00
## CSI055
                           0
                  0
                                     0
                                               0.0.000000e+00
                                                                      0
                           0
   CSI065
                  0
                                               0 0.00000e+00
##
  CSI076
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
               Otu06416
                            Otu06417 Otu06418 Otu06419
                                                              Otu06420 Otu06421
  CSI001 4.690652e-05 0.000000e+00
                                             0
                                                       0 0.000000e+00
##
                                                                               0
   CSI012 3.449941e-05 0.000000e+00
                                             0
                                                       0 1.724971e-05
                                                                               0
   CSI022 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                               0
   CSI044 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                               0
   CSI055 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                               0
   CSI065 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                               0
   CSI076 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                        Otu06423 Otu06424 Otu06425
##
          Otu06422
                                                         Otu06426 Otu06427
   CSI001
                  0 4.690652e-05
                                         0
                                                   0 0.00000e+00
                                                                           0
##
  CSI012
                  0 1.724971e-05
                                         0
                                                   0 0.00000e+00
                                                                           0
##
   CSI022
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
  CSI044
                  0 0.000000e+00
                                         Λ
                                                   0 0.00000e+00
                                                                           0
##
                  0 0.000000e+00
                                         0
                                                     0.000000e+00
                                                                           0
   CSI055
                  0 0.000000e+00
                                         0
                                                                           0
##
   CST065
                                                    0.000000e+00
                                         0
   CSI076
                   0.000000e+00
                                                     0.000000e+00
                        Otu06429 Otu06430 Otu06431
##
          Otu06428
                                                         Oti106432 Oti106433
##
   CSI001
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
##
                                         0
                                                                           0
   CSI012
                  0 1.724971e-05
                                                   0 0.00000e+00
   CSI022
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
                                         0
                                                                           0
##
   CSI044
                  0 0.00000e+00
                                                   0 0.00000e+00
##
   CSI055
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
                                         0
##
   CSI065
                  0 0.00000e+00
                                                   0 0.00000e+00
                                                                           0
##
   CST076
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                                                           0
##
              Otu06434 Otu06435
                                      Otu06436 Otu06437
                                                              Otu06438
   CSI001 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000e+00
## CSI012 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
## CSI022 0.000000e+00
                                0 0.00000e+00
                                                       0 0.000000e+00
## CSI044 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
```

```
## CSI055 0.000000e+00
                                0 4.302833e-05
                                                        0 0.00000e+00
   CSI065 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                0 0.000000e+00
   CSI076 0.000000e+00
                                                        0 0.000000e+00
##
               Otu06439
                             Otu06440
                                           Otu06441 Otu06442 Otu06443 Otu06444
  CSI001 2.345326e-05 0.000000e+00 0.000000e+00
                                                             0
                                                                      0
   CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                             Ω
                                                                      0
                                                                                0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                             0
                                                                      0
                                                                                0
   CSI055 0.000000e+00 4.302833e-05 2.151417e-05
                                                                      0
                                                                                0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                             Λ
                                                                      Λ
                                                                                0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
          Otu06445 Otu06446 Otu06447 Otu06448 Otu06449 Otu06450 Otu06451
##
##
  CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI012
                                               0
                                                         0
                                                                   0
                  0
                            0
                                      0
                                                                             0
## CSI022
                  0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
                                               0
## CSI044
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                               0
                                                         0
##
  CSI055
                                      0
                                                                   0
                                                                             0
##
   CSI065
                  0
                            0
                                                                             0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CST076
                  0
                            0
                                      0
##
          0tu06452
                        Otu06453 Otu06454 Otu06455 Otu06456 Otu06457 Otu06458
##
  CSI001
                  0 0.000000e+00
                                          Λ
                                                    Ω
                                                              0
                                                                       0
                                                                                 O
## CSI012
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI022
                  0 0.000000e+00
                                                                                 0
                                          0
                                                    0
                                                              0
                                                                       0
                                          0
  CSI044
                  0 0.00000e+00
                                                    0
                                                              0
                                                                                 0
                                          0
                                                    0
                                                              0
##
  CSI055
                  0 0.00000e+00
                                                                       0
                                                                                 0
   CSI065
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                 0
   CST076
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       Λ
                                                                                 0
##
##
          Otu06459 Otu06460
                                  Otu06461
                                                Otu06462 Otu06463
                                                                        Otu06464
## CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0 0.000000e+00
## CSI012
                  0
                            0 1.724971e-05 0.000000e+00
                                                                  0 0.00000e+00
## CSI022
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0 2.151556e-05
##
   CST044
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0 1.971570e-05
##
   CSI055
                  0
                            0 0.000000e+00 2.151417e-05
                                                                  0 0.00000e+00
  CSI065
                            0 0.000000e+00 0.000000e+00
##
                  0
                                                                  0 0.00000e+00
                  0
                            0 0.000000e+00 2.890675e-05
                                                                  0 0.00000e+00
##
   CSI076
          Otu06465 Otu06466 Otu06467 Otu06468 Otu06469 Otu06470 Otu06471
##
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI022
                  0
                            0
                                               0
                                                         0
                                      0
                                                                             0
                  0
                            0
                                               0
                                                         0
                                                                   0
## CST044
                                      0
                                                                             0
                            0
                                               0
  CSI055
                  0
                                      0
                                                                             0
## CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CST076
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
          Otu06472 Otu06473 Otu06474 Otu06475 Otu06476 Otu06477
##
                                                                         Otu06478
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000000
## CSI012
                  0
                            0
                                                         0
                                                                   0 0.000000000
                                      0
                                               0
##
  CSI022
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000000
                            0
                                               0
                                                         0
##
  CSI044
                  0
                                      0
                                                                   0 0.000000000
                                                                   0 0.0001936275
##
  CSI055
                  0
                            0
                                      0
                                               0
                                                         0
##
   CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000000
                  0
                            0
                                                         0
                                                                   0.000000000
##
                                      0
                                               0
##
          Otu06479 Otu06480 Otu06481
                                            Otu06482 Otu06483 Otu06484 Otu06485
## CSI001
                                      0 0.000000e+00
                  0
                            0
                                                              0
                                                                       0
                                                                                 0
## CSI012
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
```

```
## CSI022
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
  CSI044
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI055
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
  CSI065
                  0
                            0
                                        0.000000e+00
                                                              Λ
                                                                        0
##
##
   CST076
                            0
                                      0 2.890675e-05
                                                              0
                                                                        0
                                                                                  0
                                       Otu06488 Otu06489 Otu06490 Otu06491
##
               Otu06486 Otu06487
   CSI001 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
##
  CSI012 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI022 2.151556e-05
                                0 2.151556e-05
                                                        0
                                                                  0
                                                                            0
   CSI044 0.000000e+00
                                                                  0
                                                                            0
                                0 0.00000e+00
                                                        0
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI065 0.000000e+00
                                                        0
                                                                            0
##
                                0 0.00000e+00
##
   CSI076 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
           0tu06492
##
                         Otu06493 Otu06494 Otu06495 Otu06496 Otu06497
##
  CSI001
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
   CSI012
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                          0
                                                    0
                                                              0
                                                                        0
##
   CSI022
                  0 0.00000e+00
   CSI044
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
   CSI055
                                          0
                                                    0
                                                              0
##
                  0 0.00000e+00
                                                                        0
##
   CSI065
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
   CST076
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
               Otu06498 Otu06499 Otu06500
                                                 Otu06501 Otu06502
                                                                         Otu06503
  CSI001 0.000000e+00
##
                                0
                                          0 0.00000e+00
                                                                  0 4.690652e-05
   CSI012 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0 2.151556e-05
                                                                  0 0.00000e+00
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.000000e+00
   CSI055 4.302833e-05
                                0
##
                                          0 0.00000e+00
                                                                  0 0.000000e+00
   CSI065 0.000000e+00
                                0
                                            0.000000e+00
                                                                  0 0.00000e+00
   CSI076 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
##
##
           Otu06504
                         Otu06505 Otu06506
                                            Otu06507 Otu06508 Otu06509 Otu06510
##
  CSI001
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI012
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI022
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI044
                  0 0.000000e+00
                                                                        0
   CSI055
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CST065
                  0 0.000000e+00
##
   CSI076
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
           Otu06511
                         Otu06512 Otu06513 Otu06514
                                                      Otu06515
                                                                Otu06516
                                                                          Otu06517
  CSI001
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
                                                                                  0
  CSI012
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                  0 1.724971e-05
                                          0
   CSI022
                                                              0
                                                                                  0
                  0 0.000000e+00
                                          0
                                                    0
                                                                        0
  CSI044
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI055
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                              0
                                                                        0
                                                                                  0
##
   CSI065
                    0.000000e+00
                                          0
                                                    0
                                                              0
##
   CSI076
                  0 0.000000e+00
                                                    0
                                                                        0
           Otu06518
                    Otu06519
                                   Otu06520
                                                 Otu06521 Otu06522 Otu06523
##
## CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
##
   CSI012
                  0
                            0 0.000000e+00 1.724971e-05
                                                                            0
##
   CSI022
                  0
                            0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CSI044
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                  0
                              2.151417e-05 0.000000e+00
                                                                  0
                                                                            0
##
   CSI055
##
  CSI065
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI076
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
           Otu06524 Otu06525
                                   Otu06526 Otu06527 Otu06528 Otu06529 Otu06530
```

```
## CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
  CSI012
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
  CSI022
                              0.000000e+00
##
                  0
                                                    0
                                                              0
                                                                       0
                                                                                 0
  CSI044
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
                            0
##
   CSI055
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
  CSI065
                  0
                              0.000000e+00
                                                              0
##
   CSI076
                  0
                            0 0.000000e+00
                                                    0
                                                                       0
                                                                                 0
          Otu06531 Otu06532
##
                              Otu06533
                                            Otu06534 Otu06535
                                                               Otu06536
                                                                         Ot:1106537
## CSI001
                  0
                            0
                                      0.0000000000
                                                             0
                                                                       0
                                                                                 0
                            0
                                                              0
                                                                       0
                                                                                 0
##
  CSI012
                  0
                                      0 0.0000000000
  CSI022
                  0
                            0
                                      0 0.0000000000
                                                              0
                                                                       0
                                                                                 0
   CSI044
                  0
                            0
                                                              0
                                                                       0
                                                                                 0
##
                                        0.000000000
##
   CSI055
                  0
                            0
                                      0 0.0001505992
                                                              0
                                                                       0
                                                                                 0
   CSI065
                            0
                                      0 0.000000000
                                                              0
##
                  0
                                                                       0
                                                                                 0
   CSI076
                  0
                            0
                                      0 0.0000000000
                                                              0
                                                                                 0
##
                                                                       0
##
          Otu06538
                         Otu06539
                                       Otu06540 Otu06541
                                                               Otu06542
  CSI001
                  0 0.000000e+00 0.000000e+00
##
                                                        0 0.00000e+00
   CSI012
                  0 1.724971e-05 0.000000e+00
                                                        0 1.724971e-05
##
  CSI022
                  0 0.000000e+00 0.000000e+00
                                                        0 2.151556e-05
##
##
   CSI044
                  0 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
##
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                        0 4.302833e-05
   CSI065
                  0 0.000000e+00 0.000000e+00
                                                        0 3.782005e-05
##
  CSI076
                                                        0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
##
               Otu06543
                             Otu06544 Otu06545 Otu06546
##
                                                               Otu06547 Otu06548
   CSI001 0.000000e+00 0.000000e+00
                                              0
##
                                                        0 0.00000e+00
                                                                                0
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI044 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI055 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
##
           Otu06549 Otu06550 Otu06551 Otu06552
                                                      Otu06553
                                                                    0 \pm 1106554
##
  CSI001
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
  CSI012
                            0
                                               0 3.449941e-05 1.724971e-05
##
                  0
                                      0
   CSI022
                  0
                            0
                                      0
                                                 0.000000e+00 0.000000e+00
##
                  0
                            0
                                               0 0.000000e+00 0.000000e+00
##
  CST044
                                      0
##
  CSI055
                  0
                            0
                                      0
                                               0 0.000000e+00 4.302833e-05
  CSI065
                  n
                            0
                                      Λ
                                               0 0.000000e+00 0.000000e+00
##
   CSI076
                            0
                                      0
                                               0 0.000000e+00 2.890675e-05
##
                  0
##
               Otu06555 Otu06556 Otu06557
                                                Otu06558 Otu06559 Otu06560
  CSI001 7.035977e-05
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI012 8.624853e-05
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI022 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                0
                                                                  0
                                                                            0
   CSI044 0.000000e+00
                                           0.000000e+00
                                                                  0
   CSI055 0.000000e+00
                                0
                                          0 2.151417e-05
                                                                            0
   CSI065 0.000000e+00
                                0
                                                                  0
                                                                            0
                                          0 0.00000e+00
##
   CSI076 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
               Otu06561 Otu06562
                                       Otu06563 Otu06564 Otu06565 Otu06566
   CSI001 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI012 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI022 0.000000e+00
                                                        0
                                                                  0
                                                                            0
                                0 0.00000e+00
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
## CSI055 0.000000e+00
                                0 2.151417e-05
                                                        0
                                                                  0
                                                                            0
## CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
```

```
## CSI076 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                          0
          Otu06567 Otu06568 Otu06569
##
                                                                   Ot:1106572
                                           Otu06570 Otu06571
## CSI001
                  0
                           0
                                     0 4.690652e-05
                                                            0 0.000000e+00
## CSI012
                  0
                           0
                                     0 1.724971e-05
                                                            0 1.724971e-05
## CSI022
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.00000e+00
                           0
##
  CSI044
                  0
                                     0 0.00000e+00
                                                            0 0.00000e+00
                           0
  CSI055
                  0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI065
                  0
                           0
                                     0 0.00000e+00
                                                            0.000000e+00
##
  CSI076
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
##
              Otu06573 Otu06574 Otu06575 Otu06576
                                                         Otu06577 Otu06578
  CSI001 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
                               0
                                         0
                                                                          0
   CSI012 0.000000e+00
                                                   0 3.449941e-05
   CSI022 0.000000e+00
                               0
                                         0
                                                   0 0.000000e+00
                                                                          0
                                                   0 0.00000e+00
   CSI044 0.000000e+00
                               0
                                         0
                                                                          0
   CSI055 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
   CSI065 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
                               0
                                         0
   CSI076 0.000000e+00
                                                     0.000000e+00
                                                                          0
                                                   0
##
              Otu06579 Otu06580 Otu06581 Otu06582
                                                         Otu06583
                                                                       Otu06584
## CSI001 0.000000e+00
                               0
                                         0
                                                   0 0.000000e+00 2.345326e-05
## CSI012 1.724971e-05
                               0
                                         0
                                                   0 1.724971e-05 0.000000e+00
  CSI022 2.151556e-05
                               0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI044 0.000000e+00
                               0
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI055 0.000000e+00
                                         0
                               0
   CSI065 0.000000e+00
                               0
                                         0
                                                    0.000000e+00 0.000000e+00
   CSI076 0.000000e+00
                                         0
                                                    0.000000e+00 0.000000e+00
          Otu06585 Otu06586
                                 Otu06587 Otu06588
                                                    Otu06589 Otu06590 Otu06591
## CSI001
                           0 0.00000e+00
                                                   0
                                                                      0
                                                                               0
                  0
                                                            0
                                                                                0
## CSI012
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI022
                  0
                                                   0
                                                            0
                                                                      0
                           0 0.00000e+00
## CSI044
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI055
                  0
                             4.302833e-05
                                                   0
                                                            0
                                                                      0
                                                                               0
##
   CSI065
                  0
                           0
                             0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
##
   CSI076
                  0
                           0
                             0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                                0
                                                         Otu06596 Otu06597
##
          Otu06592 Otu06593
                                 Otu06594 Otu06595
## CSI001
                  0
                           0 0.00000e+00
                                                   0 0.00000e+00
                                                                          0
  CSI012
                  0
                                                                          0
##
                           0 0.000000e+00
                                                   0 0.00000e+00
## CSI022
                  0
                           0 0.000000e+00
                                                   0 0.00000e+00
                                                                          0
## CSI044
                  Ω
                           0 0.000000e+00
                                                   0 0.00000e+00
                                                                          0
                                                    0.000000e+00
                  0
                             0.000000e+00
                                                                          0
  CSI055
                                                                          0
##
  CSI065
                  \cap
                           Λ
                             0.000000e+00
                                                   0.000000e+00
   CSI076
                  0
                             0.000000e+00
                                                    2.890675e-05
          Otu06598 Otu06599
##
                                 Otu06600 Otu06601
                                                         Ot:1106602
                                                                       Dt:1106603
##
  CSI001
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI012
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI022
                  0
                           0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI044
                  0
                                                   0 0.000000e+00 0.000000e+00
                           0 0.00000e+00
##
  CSI055
                  0
                           0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
##
   CSI065
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
   CST076
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00 2.890675e-05
##
          Otu06604 Otu06605
                             Otu06606 Otu06607 Otu06608 Otu06609
                                                                        Otu06610
## CSI001
                           0
                                                        0
                  0
                                     0
                                              0
                                                                  0 0.00000e+00
                           0
                                              0
## CSI012
                  0
                                     0
                                                        0
                                                                  0 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 2.151556e-05
## CSI044
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.00000e+00
```

```
## CSI055
                  0
                           0
                                     0
                                              0
                                                                 0 0.00000e+00
  CST065
                           0
                                                        0
                                                                 0 0.000000e+00
                  0
                                     0
                                              0
##
   CSI076
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
##
          Otu06611 Otu06612 Otu06613
                                           Otu06614 Otu06615
                                                                  D±1106616
##
  CST001
                  0
                           0
                                     0 0.000000e+00
                                                            0 2.345326e-05
  CSI012
                  0
                           0
                                                            0 0.000000e+00
##
                                     0 1.724971e-05
                           0
  CSI022
                  0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI044
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.00000e+00
##
   CSI055
                  0
                           0
                                     0 0.00000e+00
                                                            Λ
                                                              0.000000e+00
                  0
                           0
##
   CSI065
                                     0 0.000000e+00
                                                            0 0.00000e+00
   CSI076
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.00000e+00
          Otu06617 Otu06618
##
                                 Otu06619
                                               Otu06620 Otu06621
                                                                       Otu06622
##
   CSI001
                  0
                           0 0.000000e+00 2.345326e-05
                                                                0 0.000000e+00
##
   CSI012
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
  CSI022
                  0
                           0 2.151556e-05 0.000000e+00
                                                                0 0.000000e+00
##
   CSI044
                  0
                             0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
##
                           0 0.000000e+00 0.000000e+00
##
   CSI055
                  0
                                                                0 2.151417e-05
   CSI065
                             0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
##
                           0 0.000000e+00 0.000000e+00
##
   CST076
                  0
                                                                0 2.890675e-05
##
          Otu06623 Otu06624
                             Otu06625 Otu06626 Otu06627
                                                              Otu06628 Otu06629
##
  CSI001
                  0
                           0
                                     0
                                              0
                                                        0 4.690652e-05
                                                                               Λ
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
## CSI022
                                                                               0
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
   CSI044
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                                              0
                                                                               0
##
  CST055
                  0
                           0
                                     0
                                                        0 0.00000e+00
   CSI065
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
   CSI076
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
##
          Otu06630
                   Otu06631 Otu06632
                                           Otu06633 Otu06634
                                                                  Otu06635
                                     0 0.000000000
##
   CSI001
                  0
                           0
                                                            0 2.345326e-05
  CSI012
                  0
                           0
                                     0.000000000
                                                            0 0.00000e+00
##
  CSI022
                  0
                           0
                                     0 0.000000000
                                                            0 0.00000e+00
##
   CSI044
                  0
                           0
                                     0.000000000
                                                            0 0.000000e+00
##
   CSI055
                  0
                           0
                                     0 0.000000000
                                                              0.000000e+00
                  0
                           0
##
   CSI065
                                     0 0.000000000
                                                            0 0.00000e+00
                  0
                           0
                                     0 0.000000000
                                                            0 0.00000e+00
##
   CSI076
          Otu06636
                        Otu06637
                                                   Otu06639 Otu06640 Otu06641
##
                                      0t.1106638
## CSI001
                  0 4.690652e-05 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI012
                  0 0.000000e+00 1.724971e-05 0.000000e+00
                                                                     0
                                                                              0
##
   CSI022
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
##
  CST044
                                                                              0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
   CSI055
                                                                              0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
##
   CST065
##
   CST076
                  0 2.890675e-05 0.000000e+00 0.000000e+00
                                                                     0
                                     Otu06644 Otu06645 Otu06646
##
             Otu06642 Otu06643
                                                                   Otu06647
   CSI001 0.00000e+00
                              0 0.000000000
                                                      0
                                                               0.00000000
   CSI012 0.00000e+00
                                                      0
                              0 0.000000000
                                                               0 0.00000000
   CSI022 0.00000e+00
                              0 0.000000000
                                                      0
                                                               0 0.00019364
                                                      0
   CSI044 1.97157e-05
                              0 0.000000000
                                                                 0.00000000
   CSI055 0.00000e+00
                              0.000000000
                                                      0
                                                                 0.0000000
   CSI065 0.00000e+00
                              0
                                0.0001134602
                                                      0
                                                                 0.00000000
   CSI076 0.00000e+00
                              0.000000000
                                                      0
                                                               0.00000000
##
##
          Ot.1106648
                       Otu06649 Otu06650 Otu06651 Otu06652 Otu06653 Otu06654
## CSI001
                  0 0.00000e+00
                                        0
                                                 0
                                                           0
                                                                     0
                                                                              0
## CSI012
                 0 0.00000e+00
                                        0
                                                 0
                                                           0
                                                                     0
                                                                              0
```

```
## CSI022
                   0 0.00000e+00
                                          0
                                                                        0
                                                                                  0
   CSI044
                   0 0.00000e+00
                                                    0
##
                                          0
                                                              0
                                                                        0
                                                                                  0
##
   CSI055
                   0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI065
                   0 7.56401e-05
                                          O
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
   CST076
                   0 0.00000e+00
                                                    0
               Otu06655
                              Otu06656 Otu06657 Otu06658 Otu06659
##
                                                                          Otu06660
   CSI001 0.000000e+00 0.000000e+00
                                               0
                                                          0
                                                                    0 0.00000e+00
   CSI012 0.000000e+00 1.724971e-05
                                               0
                                                         0
                                                                    0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                    0 0.000000e+00
                                               0
   CSI044 0.000000e+00 0.000000e+00
                                                         0
                                                                    0 0.000000e+00
   CSI055 2.151417e-05 0.000000e+00
                                                0
                                                         0
                                                                    0 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00
                                                0
                                                         0
                                                                    0 0.00000e+00
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                    0 5.781349e-05
           Otu06661 Otu06662 Otu06663 Otu06664 Otu06665
                                                                 Otu06666 Otu06667
##
## CSI001
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
                             0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
                             0
                                                 0
                                                                                   0
##
   CSI022
                   0
                                       0
                                                           0 0.00000e+00
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
   CSI055
                             0
                                                 0
                                                                                   0
##
                   0
                                       0
                                                           0.000000e+00
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                   O
##
           Otu06668 Otu06669
                               Otu06670
                                             Otu06671
                                                            Otu06672 Otu06673
## CSI001
                                        2.345326e-05 0.000000e+00
                   0
                             0
                                                                              0
   CSI012
                             0
                                         0.000000e+00 0.000000e+00
##
                   0
                                                                              0
##
  CSI022
                   0
                             0
                                        0.000000e+00 2.151556e-05
                                                                              0
   CSI044
                   0
                             0
                                         0.000000e+00 0.000000e+00
                                                                              0
   CSI055
                   0
                             0
                                         0.000000e+00 0.000000e+00
                                                                              0
##
                                         0.000000e+00 0.000000e+00
##
   CSI065
                   0
                             0
                                                                              0
   CSI076
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
##
##
           Otu06674
                         Otu06675 Otu06676 Otu06677 Otu06678 Otu06679 Otu06680
##
  CSI001
                   0
                    2.345326e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI012
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI022
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                           0
                                                     0
                                                               0
                                                                                   0
##
   CSI044
                   0 0.000000e+00
                                                                         0
   CSI055
                    2.151417e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CST065
##
   CSI076
                    0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
           Otu06681
                    Otu06682 Otu06683
                                             Otu06684
                                                       Otu06685
                                                                 Otu06686
                                                                           Otu06687
## CSI001
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                   0
                                                                                   0
   CSI012
                             0
                                                               0
                                                                         0
                                                                                   0
##
                   0
                                       0 0.000000e+00
   CSI022
                             0
                                                               0
                                                                                   0
                   0
                                         0.000000e+00
                                                                         0
  CSI044
                   0
                             0
                                         0.00000e+00
                                                               0
                                                                         0
                                                                                   0
##
##
   CSI055
                   0
                             0
                                         0.00000e+00
                                                               0
                                                                         0
                                                                                   0
                                                               0
                                                                         0
                                                                                   0
##
   CSI065
                   0
                             0
                                        0.000000e+00
                                       0 0.000000e+00
                                                               0
                                                                         0
##
   CSI076
                                                                                   0
                         Otu06689 Otu06690 Otu06691 Otu06692
           Otu06688
                                                                 Otu06693
##
                                                                           Otu06694
##
  CSI001
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012
                                                                                   0
##
                   0 3.449941e-05
                                           0
                                                     0
                                                               0
                                                                         0
##
   CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI044
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI055
                    1.075708e-04
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
##
   CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
  CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
               Otu06695 Otu06696 Otu06697 Otu06698 Otu06699
                                                                      Otu06700
```

```
## CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
  CSI012 0.000000e+00
                                                    0
                                0
                                          0
                                                              0 1.724971e-05
                                                                0.000000e+00
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                    0
   CSI044 0.000000e+00
                                0
                                          0
                                                                0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                                0.000000e+00
   CSI065 0.000000e+00
                                          0
                                                    0
##
                                0
                                                              0 0.00000e+00
                                          0
                                                    0
   CSI076 0.000000e+00
                                0
                                                                0.00000e+00
##
               Otu06701 Otu06702 Otu06703 Otu06704
                                                      Otu06705
                                                                    Ot.1106706
   CSI001 2.345326e-05
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
                                0
                                                    0
   CSI012 0.000000e+00
                                          0
                                                              0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                2.151556e-05
                                0
                                          0
                                                    0
   CSI044 0.000000e+00
                                                                0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 4.302833e-05
   CSI065 0.000000e+00
                                          0
                                                              0 0.00000e+00
                                0
                                                    0
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
##
##
               Otu06707
                             Otu06708 Otu06709 Otu06710 Otu06711 Otu06712
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                        0
##
                                                                  0
                                                                            0
   CSI012 0.000000e+00 3.449941e-05
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI022 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                              0
                                                        0
   CSI044 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI055 0.000000e+00 0.000000e+00
                                               0
                                                        Λ
                                                                  0
                                                                            0
   CSI065 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                        Λ
                                                                  0
                                                                            0
           Otu06713 Otu06714 Otu06715 Otu06716 Otu06717 Otu06718
##
                                                                          Otu06719
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
  CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 3.449941e-05
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
##
                            0
                                                0
##
   CSI044
                  0
                                      0
                                                          0
                                                                   0 0.00000e+00
                                                0
                  0
                            0
                                      0
                                                          0
                                                                   0 0.000000e+00
##
   CSI055
##
  CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
##
          Otu06720 Otu06721 Otu06722
                                            Otu06723 Otu06724
                                                                    Otu06725
## CSI001
                  0
                            0
                                      0 2.345326e-05
                                                              0 0.000000e+00
  CSI012
                            0
                                      0 1.724971e-05
                                                              0 0.000000e+00
##
                  0
   CSI022
                  0
                            0
                                        0.000000e+00
                                                              0 0.00000e+00
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
##
  CST044
##
  CSI055
                  0
                            0
                                      0 0.00000e+00
                                                              0 2.151417e-05
  CSI065
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.000000e+00
##
                  0
                            0
                                      0 0.000000e+00
##
   CSI076
                                                              0 5.781349e-05
##
              Otu06726 Otu06727 Otu06728 Otu06729 Otu06730 Otu06731 Otu06732
  CSI001 0.00000e+00
                               0
                                         0
                                                   0
                                                             0
                                                                       0
  CSI012 0.00000e+00
                               0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI022 0.00000e+00
                               0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                               0
                                                   0
                                                                       0
   CSI044 0.00000e+00
                                         0
                                                             0
                                                                                 0
                               0
                                                                       0
   CSI055 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                                 0
   CSI065 7.56401e-05
                               0
                                         0
                                                   0
                                                                       0
                                                             0
                                                                                 0
##
   CSI076 0.00000e+00
                               0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
           Otu06733 Otu06734 Otu06735
                                            Otu06736
                                                           Otu06737 Otu06738
## CSI001
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
  CSI012
                  0
                            0
                                        0.000000e+00 0.000000e+00
                                                                            0
                                       0.000000e+00 0.000000e+00
                  0
                            0
                                                                            0
##
  CSI022
## CSI044
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
## CSI055
                  0
                            0
                                      0 0.000000e+00 2.151417e-05
                                                                            0
## CSI065
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
```

```
## CSI076
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
          Otu06739 Otu06740 Otu06741 Otu06742 Otu06743 Otu06744
                                                                        Ot:1106745
## CSI001
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 6.899883e-05
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 2.151556e-05
                  0
                            0
                                               0
                                                         0
## CSI044
                                     0
                                                                  0 0.000000e+00
                            0
                                               0
                                                         0
  CSI055
                  0
                                     0
                                                                  0 0.00000e+00
                                                         0
## CSI065
                  0
                            0
                                     0
                                               0
                                                                  0 0.00000e+00
##
  CSI076
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
                            Otu06747 Otu06748 Otu06749
##
               Otu06746
                                                             Otu06750 Otu06751
  CSI001 0.000000e+00 0.000000000
                                             0
                                                      0 0.00000e+00
                                                                              0
   CSI012 5.174912e-05 0.000000000
                                             0
                                                                              0
                                                      0 3.449941e-05
   CSI022 0.000000e+00 0.000000000
                                             0
                                                      0 0.000000e+00
                                                                              0
                                                      0 0.00000e+00
   CSI044 0.000000e+00 0.000000000
                                             0
                                                                              0
   CSI055 0.000000e+00 0.000000000
                                             0
                                                      0 0.000000e+00
                                                                              0
   CSI065 0.000000e+00 0.000000000
                                             0
                                                      0 0.00000e+00
                                                                              0
   CSI076 0.000000e+00 0.000115627
                                             0
                                                      0 0.00000e+00
                                                                              0
##
               Otu06752 Otu06753 Otu06754 Otu06755
                                                         Otu06756 Otu06757
## CSI001 0.000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
## CSI012 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
  CSI022 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
## CSI044 0.0001577256
                                0
                                         0
                                                   0 0.000000e+00
                                                                           0
## CSI055 0.0000000000
                                0
                                         0
                                                   0 2.151417e-05
                                                                           0
   CSI065 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
  CSI076 0.0000000000
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
              Otu06758 Otu06759 Otu06760 Otu06761
                                                         Otu06762
                                                                       Otu06763
## CSI001 2.345326e-05
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                         0
   CSI012 0.000000e+00
                                0
                                                   0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 4.303111e-05
   CSI044 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                0
                                         0
                                                   0 3.782005e-05 0.000000e+00
   CSI076 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
##
                                                Otu06767 Otu06768 Otu06769
              Otu06764 Otu06765 Otu06766
   CSI001 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
  CSI012 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
  CSI022 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
  CSI044 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
   CSI055 4.302833e-05
                                0
                                         0 0.000000e+00
                                                                 0
                                                                           0
  CSI065 0.000000e+00
                                0
                                                                 0
                                                                           0
                                         0.000000e+00
   CSI076 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
##
          Otu06770 Otu06771 Otu06772 Otu06773 Otu06774 Otu06775 Otu06776
##
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
                                               0
                                                         0
                                                                  0
## CSI012
                  0
                                     0
                                                                            0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI044
                  0
                            0
                                                         0
                                                                  0
                                     0
                                               0
                                                                            0
##
  CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                                                                  0
##
   CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
##
   CST076
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
          Otu06777
                    Otu06778 Otu06779
                                       Otu06780 Otu06781
                                                               Otu06782 Otu06783
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0.0.000000e+00
                                                                                0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI022
                  0
                            0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
## CSI044
                  0
                            0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
```

```
## CSI055
                  0
                            0
                                                         0 0.00000e+00
                                                                                 0
  CSI065
                                               0
                                                                                 0
##
                  0
                            0
                                      0
                                                         0 3.782005e-05
   CSI076
##
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
          Otu06784
                        Otu06785 Otu06786 Otu06787 Otu06788 Otu06789 Otu06790
##
   CST001
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI012
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
                  0 0.00000e+00
                                                              0
   CSI022
                  0 0.000000e+00
                                          0
                                                    0
                                                                       0
                                                                                 0
## CSI044
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
   CSI055
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                              0
                                                                                 0
##
   CSI065
                  0 0.000000e+00
                                                                       Λ
##
   CSI076
                  0 8.672024e-05
                                          0
                                                    0
                                                              0
                                                                                 0
##
               Otu06791 Otu06792 Otu06793
                                                Otu06794 Otu06795
                                                                        Otu06796
##
   CSI001 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0 0.000000e+00
                                0
   CSI012 0.000000e+00
                                          0 1.724971e-05
                                                                  0 0.00000e+00
   CSI022 2.151556e-05
                                          0 0.000000e+00
                                0
                                                                  0 6.454667e-05
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
                                0
   CSI055 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI065 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
                                0
##
   CST076 0.000000e+00
                                          0.000000e+00
                                                                  0.000000e+00
##
           Otu06797 Otu06798 Otu06799
                                            Otu06800
                                                          Otu06801 Otu06802
##
  CSI001
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
  CSI012
                  0
                            0
                                      0 3.449941e-05 1.724971e-05
                                                                            0
## CSI022
                            0
                                      0 0.000000e+00 0.000000e+00
                  0
                                                                            0
                            0
                                      0 0.000000e+00 0.000000e+00
##
   CSI044
                  0
                                                                            0
                            0
##
  CST055
                  0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
   CSI065
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
   CSI076
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
                                       Otu06805 Otu06806 Otu06807 Otu06808
##
          Otu06803
                         Otu06804
                  0 7.035977e-05 0.0000000000
                                                                  0
##
   CSI001
                                                        0
                                                                            0
   CSI012
                  0 0.000000e+00 0.0001034982
                                                        0
                                                                  0
                                                                            0
##
   CSI022
                  0 0.000000e+00 0.0000000000
                                                        0
                                                                  0
                                                                            0
##
   CSI044
                  0 0.000000e+00 0.0000000000
                                                        0
                                                                  0
                                                                            0
##
   CSI055
                    0.000000e+00 0.0000000000
                                                        0
                                                                  0
                                                                            0
                  0 0.000000e+00 0.0000000000
                                                                  0
##
   CSI065
                                                        0
                                                                            0
                    0.000000e+00 0.0000000000
                                                        0
                                                                  0
                                                                            0
##
   CSI076
          Otu06809 Otu06810 Otu06811 Otu06812 Otu06813 Otu06814
                                                                         Otu06815
##
##
  CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 1.172663e-04
##
  CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
  CSI022
                  0
                            0
                                               0
                                                         0
                                                                   0 0.000000e+00
                                      0
                  0
                            0
                                               0
                                                         0
##
  CSI044
                                      0
                                                                   0 0.000000e+00
                            0
                                               0
                                                         0
   CSI055
                  0
                                      0
                                                                   0 0.000000e+00
   CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
##
   CST076
                  0
                            0
                                      0
                                                         0
                                                                   0 0.00000e+00
          Otu06816 Otu06817
                                  Otu06818
##
                                                Otu06819 Otu06820 Otu06821
##
  CSI001
                  0
                            0 0.0000000000 2.345326e-05
                                                                  0
                                                                            0
  CSI012
                  0
                             0.0001034982 0.000000e+00
                                                                  0
                                                                            0
##
##
   CSI022
                  0
                            0
                              0.000000000 0.000000e+00
                                                                  0
                                                                            0
                  0
                                                                  0
##
   CSI044
                              0.000000000 0.000000e+00
                                                                            0
##
   CSI055
                  0
                              0.000000000 0.000000e+00
                                                                  0
                                                                            0
##
   CSI065
                  0
                              0.000000000 0.000000e+00
                                                                  0
                                                                            0
                            0 0.000000000 0.000000e+00
                                                                  0
                                                                            0
##
   CST076
                  0
##
               Otu06822 Otu06823 Otu06824 Otu06825
                                                          Otu06826 Otu06827
## CSI001 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
## CSI012 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
```

```
## CSI022 2.151556e-05
                                 0
                                                     0 0.00000e+00
                                                                             0
   CSI044 0.000000e+00
                                 0
                                           0
                                                      0.000000e+00
                                                                             0
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                             0
   CSI065 0.000000e+00
                                 0
                                           0
                                                      0.000000e+00
                                                                             0
##
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                             0
##
               Otu06828
                             Otu06829 Otu06830 Otu06831
                                                                Otu06832
   CSI001 0.0000000000 0.000000e+00
                                               0
                                                         0 0.00000e+00
  CSI012 0.0000000000 0.000000e+00
                                               0
                                                         0 1.724971e-05
   CSI022 0.0000000000 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                               0
   CSI044 0.0000000000 0.000000e+00
                                                         0 0.00000e+00
   CSI055 0.0001721133 0.000000e+00
                                               0
                                                         0 0.00000e+00
   CSI065 0.0000000000 0.000000e+00
                                               0
                                                         0 0.000000e+00
   CSI076 0.0000000000 2.890675e-05
                                               0
                                                         0 0.000000e+00
##
               Otu06833 Otu06834 Otu06835 Otu06836 Otu06837 Otu06838 Otu06839
##
   CSI001 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                  0
   CSI022 0.000000e+00
                                           0
                                                                                  0
                                 0
                                                     0
                                                               0
                                                                        0
   CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                  0
   CSI055 1.075708e-04
                                 0
                                           0
                                                     0
                                                              0
                                                                                  0
                                                                        0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                  0
##
   CSI076 5.781349e-05
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  O
           Otu06840 Otu06841 Otu06842 Otu06843 Otu06844 Otu06845 Otu06846
##
## CSI001
                                                                    0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
## CSI012
                            0
                                                          0
                                                                    0
                  0
                                      0
                                                0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                            0
                                                0
                                                                    0
##
   CSI065
                  0
                                      0
                                                          0
                                                                              0
                                                0
                                                                    0
   CSI076
                  0
                            0
                                      0
                                                          0
                                                                              0
##
##
           Otu06847
                    Otu06848 Otu06849 Otu06850 Otu06851 Otu06852
                                                                      Otu06853
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI044
                                      0
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CST065
                  0
##
   CSI076
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
              Otu06854 Otu06855 Otu06856 Otu06857 Otu06858 Otu06859 Otu06860
   CSI001 0.000000000
                                0
                                         0
                                                   0
                                                             0
                                                                       0
   CSI012 0.000000000
                                0
                                                   0
                                                                       0
##
                                         0
                                                             0
                                                                                 0
   CSI022 0.000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI044 0.000000000
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI055 0.000129085
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                0
                                                   0
                                                                       0
   CSI065 0.000000000
                                          0
                                                              0
                                                                                 0
                                0
                                                   0
                                                                       0
   CSI076 0.000000000
                                                                                 0
                                                                Otu06865 Otu06866
##
           Otu06861
                         Otu06862 Otu06863
                                                 Otu06864
## CSI001
                  0 2.345326e-05
                                           0 0.000000e+00 0.000000e+00
                                                                                 0
   CSI012
##
                  0 0.000000e+00
                                           0 1.724971e-05 0.000000e+00
                                                                                 0
   CSI022
                  0 0.000000e+00
                                           0 0.000000e+00 0.000000e+00
                                                                                 0
##
   CSI044
                    0.000000e+00
                                           0 0.000000e+00 0.000000e+00
                                                                                 0
                  0 0.000000e+00
                                           0 0.000000e+00 0.000000e+00
##
   CSI055
                                                                                 0
##
  CSI065
                  0 0.000000e+00
                                           0 0.000000e+00 0.000000e+00
                                                                                 0
                  0 0.000000e+00
## CSI076
                                           0 0.000000e+00 0.000000e+00
                                                                                 0
##
           Otu06867
                         Otu06868 Otu06869 Otu06870 Otu06871 Otu06872 Otu06873
```

```
## CSI001
                  0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CST012
                   0 3.449941e-05
                                           0
                                                     0
                                                                                   0
##
                                                               0
                                                                         0
                   0 0.000000e+00
##
   CSI022
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                                               0
   CSI044
                   0 0.000000e+00
                                           0
                                                     0
                                                                         0
                                                                                   0
##
##
   CSI055
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                   0 0.000000e+00
                                                     0
                                                               Λ
                                                                                   0
##
   CSI065
                                           0
                                                                         0
                   0 0.000000e+00
##
   CSI076
                                           0
                                                               0
                                                                                   0
                                                      Otu06877 Otu06878 Otu06879
##
           Otu06874
                         Ot:1106875
                                        Otu06876
## CSI001
                   0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  O
                                                                        0
##
   CSI012
                   0 1.724971e-05 0.000000e+00 0.000000e+00
                                                                                  0
   CSI022
                   0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI044
                   0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
##
##
   CSI055
                   0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
                   0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI065
                                                                        0
                                                                                  0
##
   CSI076
                   0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
##
           Otu06880 Otu06881 Otu06882
                                             Otu06883 Otu06884 Otu06885 Otu06886
## CSI001
                            0
                                      0 0.0000000000
                                                               0
                                                                         0
                  0
                                                                                   0
##
   CSI012
                   0
                            0
                                      0 0.0000000000
                                                               0
                                                                         0
                                                                                   0
  CSI022
                            0
                                      0.0000000000
                                                               0
                                                                                   0
##
                  0
                                                                         0
##
   CSI044
                  0
                            0
                                         0.000000000
                                                               0
                                                                         0
                                                                                   0
##
   CSI055
                  0
                            0
                                        0.000000000
                                                               0
                                                                         0
                                                                                   0
   CSI065
                   0
                            0
                                      0 0.0000000000
                                                               0
                                                                                   0
##
                            0
                                      0 0.0000000000
                                                               0
##
   CSI076
                  \cap
                                                                         0
                                                                                   0
                         Otu06888 Otu06889 Otu06890 Otu06891
                                                                 Otu06892 Otu06893
##
           Otu06887
## CSI001
                  0 7.035977e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI022
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
                                           0
                                                               0
                                                                                   0
##
   CSI044
                   0 0.000000e+00
                                                     0
                                                                         0
                                                                                   0
   CSI055
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
##
   CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI076
                   0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
               Otu06894
                             Otu06895
                                            Otu06896 Otu06897 Otu06898 Otu06899
   CSI001 2.345326e-05 0.000000e+00 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
   CSI012 0.000000e+00 0.000000e+00 1.724971e-05
                                                                        0
                                                                                  0
                                                              0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                              0
                                                                                  0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                              0
                                                                        0
           Otu06900 Otu06901 Otu06902 Otu06903 Otu06904 Otu06905 Otu06906
##
## CSI001
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                0
                                                          0
                                                                    0
##
   CSI044
                  0
                                      0
                                                                              0
                            0
                                                          0
##
  CSI055
                   0
                                      0
                                                0
                                                                    0
                                                                              0
## CSI065
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
                   0
                                      0
##
   CSI076
                  0
                            0
                                      0
                                                          0
           Otu06907 Otu06908 Otu06909
                                             Otu06910 Otu06911
##
                                                                     Otu06912
## CSI001
                  0
                            0
                                      0 0.000000e+00
                                                               0 0.000000e+00
##
   CSI012
                  0
                            0
                                        0.000000e+00
                                                               0 0.00000e+00
   CSI022
                  0
                            0
                                        0.000000e+00
##
                                                               0 4.303111e-05
## CSI044
                  0
                            0
                                      0 0.000000e+00
                                                               0 0.00000e+00
                                      0 0.000000e+00
## CSI055
                  0
                            0
                                                               0 0.000000e+00
## CSI065
                  0
                            0
                                      0 0.00000e+00
                                                               0 0.00000e+00
```

```
## CSI076
                  0
                            0
                                     0 0.000000e+00
                                                             0 0.000000e+00
##
          Otu06913 Otu06914 Otu06915 Otu06916 Otu06917 Otu06918 Otu06919
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
                  0
                            0
                                     0
                                               0
                                                         0
## CSI044
                                                                   0
                                                                            0
                            0
## CSI055
                  0
                                     0
                                               0
                                                                            0
## CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI076
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
                       Otu06921 Otu06922 Otu06923 Otu06924 Otu06925 Otu06926
##
          Otu06920
## CSI001
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI012
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI022
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                                   0
## CSI044
                  0 0.00000e+00
                                         0
                                                                      0
                                                                                0
## CSI055
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI065
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                  0 0.00000e+00
                                         0
                                                  0
##
  CSI076
                                                                      0
                                                                                0
##
          Otu06927
                        Otu06928
                                      Otu06929 Otu06930
                                                              Otu06931 Otu06932
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
## CSI012
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
  CSI022
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
## CSI044
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                  0 2.151417e-05 0.000000e+00
                                                        0 4.302833e-05
## CSI055
                                                                                0
                  0 0.000000e+00 0.000000e+00
   CSI065
                                                        0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
##
  CSI076
                                                        0 0.000000e+00
               Otu06933
                             Otu06934 Otu06935 Otu06936 Otu06937 Otu06938
## CSI001 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                           0
                                                                  0
   CSI012 0.000000e+00 0.0000000000
                                                                  0
                                              0
                                                        0
                                                                            0
                                                                  0
   CSI022 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                            0
   CSI044 0.000000e+00 0.0001380099
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI055 2.151417e-05 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI065 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
   CSI076 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
##
          Otu06939 Otu06940 Otu06941 Otu06942 Otu06943 Otu06944 Otu06945
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI022
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI044
                  Ω
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
                                     0
## CSI055
                  0
                            0
                                               0
                                                         0
                                                                            0
## CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
   CSI076
                            0
##
          Otu06946
                        Otu06947 Otu06948 Otu06949
                                                          Otu06950 Otu06951
                                                   0 0.000000e+00
##
  CSI001
                  0 0.00000e+00
                                          0
                                                                            0
                                          0
## CSI012
                  0 0.000000e+00
                                                    0 0.000000e+00
                                                                            0
## CSI022
                  0 2.151556e-05
                                          0
                                                    0 0.00000e+00
                                                                            0
## CSI044
                                          0
                                                                            0
                  0 0.00000e+00
                                                    0 0.00000e+00
##
  CSI055
                  0 0.000000e+00
                                          0
                                                    0 8.605667e-05
                                                                            0
                                                                            0
##
   CSI065
                  0 0.00000e+00
                                                    0 0.00000e+00
                  0 0.000000e+00
                                                   0 2.890675e-05
                                                                            0
##
           Otu06952 Otu06953 Otu06954
                                            Otu06955 Otu06956 Otu06957
## CSI001
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                            0
                                                             0
## CSI012
                  0
                                     0 5.174912e-05
                                                                       0
## CSI022
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
## CSI044
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
```

```
## CSI055
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
  CSI065
                                      0 0.000000e+00
                                                              0
                                                                        0
                  0
                            0
##
  CSI076
                            0
                                      0 0.000000e+00
                                                              0
##
               Otu06958 Otu06959 Otu06960
                                                 Otu06961 Otu06962
                                                                         Otu06963
  CSI001 0.000000e+00
                                0
                                          0 2.345326e-05
                                                                  0 0.000000e+00
  CSI012 0.000000e+00
                                0
                                          0 1.724971e-05
                                                                  0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
  CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI055 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0 4.302833e-05
   CSI065 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0 0.00000e+00
   CSI076 0.000000e+00
                                0
                                          0
                                            0.000000e+00
                                                                  0 8.672024e-05
##
          Otu06964
                         Otu06965 Otu06966
                                                 Otu06967
                                                               Otu06968
##
   CSI001
                  0 4.690652e-05
                                          0 0.000000e+00 0.000000e+00
   CSI012
##
                  0 0.00000e+00
                                          0 3.449941e-05 0.000000e+00
  CSI022
                  0 0.000000e+00
                                          0 0.000000e+00 4.303111e-05
##
   CSI044
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
##
                                          0 0.000000e+00 0.000000e+00
##
   CSI055
                  0 0.00000e+00
   CSI065
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
   CST076
                  0 0.00000e+00
##
               Otu06969 Otu06970 Otu06971 Otu06972 Otu06973 Otu06974 Otu06975
##
   CSI001 0.0000000000
                                0
                                          Λ
                                                    Ω
                                                              Λ
                                                                        0
                                                                                  0
   CSI012 0.0000000000
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI022 0.0000000000
                                          0
                                                                                  0
                                0
                                                    0
                                                              0
                                                                        0
   CSI044 0.0000000000
                                          0
                                0
                                                    0
                                                              0
                                                                                  0
                                          0
                                                    0
                                                                                  0
   CSI055 0.0000000000
                                0
                                                              0
                                                                        0
   CSI065 0.0000000000
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI076 0.0000000000
                                0
                                          0
                                                    0
                                                              0
                                                                        Λ
                                                                                  0
          Otu06976 Otu06977 Otu06978 Otu06979
##
                                                      Otu06980
                                                                    Otu06981
##
  CSI001
                  0
                                      0
                                                0 0.000000e+00 0.000000e+00
                            0
##
  CSI012
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
## CSI022
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI044
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI055
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
   CSI065
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
##
                                      0
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI076
          Otu06982 Otu06983 Otu06984 Otu06985 Otu06986 Otu06987 Otu06988
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI022
                  0
                            0
                                                0
                                                          0
                                                                             0
                  0
                            0
                                                0
                                                          0
##
  CSI044
                                      0
                                                                   0
                                                                             0
                  0
                            0
                                                0
                                                          0
   CSI055
                                      0
                                                                             0
  CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
##
   CSI076
                  \cap
                            0
                                      0
                                                0
                                                          \cap
                                                                   0
                                                                             0
                         Otu06990 Otu06991 Otu06992 Otu06993 Otu06994 Otu06995
##
          Otu06989
  CSI001
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
  CSI012
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
##
   CSI022
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                                                  0
   CSI044
                  0 0.000000e+00
                                                    0
                                                              0
                                                                        0
##
   CSI055
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI065
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                  0 2.890675e-05
##
          Otu06996 Otu06997 Otu06998 Otu06999 Otu07000 Otu07001 Otu07002
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
```

```
## CSI022
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI044
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                       0
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
   CSI065
                             0
                                                 0
                   0
                                       0
                                                            0
                                                                      0
                                                                                0
##
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
           Otu07003 Otu07004
                               Otu07005 Otu07006 Otu07007 Otu07008
##
                                                                        Ot.1107009
##
  CSI001
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI012
                                                            0
                                                                      0
                   0
                             0
                                       0
                                                 0
                                                                                0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                             0
                                                 0
                                                            0
                                                                      0
##
   CSI044
                   0
                                       0
                                                                                0
   CSI055
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                                            0
                                                                      0
   CSI065
                   0
                             0
                                       0
                                                 0
                                                                                0
##
                                                                      0
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                                0
           Otu07010
                     Otu07011
                               Otu07012 Otu07013
##
                                                   Otu07014 Otu07015
                                                                             Otu07016
##
  CSI001
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.000000e+00
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                       1.724971e-05
   CSI022
                   0
                             0
                                                 0
                                                            0
##
                                       0
                                                                      0 0.00000e+00
   CSI044
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.00000e+00
   CSI055
                   0
                             0
                                                 0
                                                            0
                                                                      0 0.000000e+00
##
                                       0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.00000e+00
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      Ω
                                                                       0.000000e+00
##
           Otu07017
                     Otu07018
                                    Otu07019 Otu07020
                                                             0tu07021
                                                                           Otu07022
## CSI001
                   0
                             0 0.000000e+00
                                                      0 0.000000e+00 0.000000e+00
   CSI012
                   0
                               0.000000e+00
                                                       0.000000e+00 0.000000e+00
##
                             0
##
   CSI022
                   0
                               0.000000e+00
                                                      0 8.606222e-05 0.000000e+00
   CSI044
                   0
                               0.000000e+00
                                                        0.000000e+00 0.000000e+00
   CSI055
                   0
                               0.000000e+00
                                                        0.000000e+00 4.302833e-05
##
                             0
                   0
                               0.000000e+00
                                                        0.000000e+00 0.000000e+00
##
   CSI065
                             0
   CSI076
                   0
                             0 2.890675e-05
                                                      0 0.000000e+00 0.000000e+00
##
##
           0tu07023
                          Otu07024 Otu07025 Otu07026
                                                        Otu07027 Otu07028 Otu07029
##
   CSI001
                   0 4.690652e-05
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
   CSI012
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
   CSI022
                     0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
   CSI044
                     0.000000e+00
   CSI055
                     0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
   CSI065
                     0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
##
   CSI076
                     0.000000e+00
                                            0
                                                                0
                                                                          0
                                                                                     0
##
           Otu07030
                     Otu07031 Otu07032 Otu07033
                                                        Otu07034
                                                                  0tu07035
                                                                            Otu07036
   CSI001
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                     0
##
                                                                                     0
   CSI012
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
##
   CSI022
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                                     0
   CSI044
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
##
                             0
                                                                                    0
##
   CSI055
                   0
                                       0
                                                   0.000000e+00
                                                                          0
                             0
                                       0
                                                                                    0
##
   CSI065
                   Λ
                                                 0 0.00000e+00
                                                                          Λ
                             0
                                       0
                                                 0 0.000000e+00
                                                                                     0
##
   CSI076
               Otu07037 Otu07038 Otu07039 Otu07040 Otu07041
##
                                                                       0tu07042
   CSI001 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0 0.000000e+00
                                 0
                                                      0
   CSI012 0.000000e+00
                                            0
                                                                0
                                                                  3.449941e-05
   CSI022 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                  0.000000e+00
   CSI044 0.000000e+00
                                 0
                                            0
                                                      0
                                                                  0.000000e+00
                                                                  0.000000e+00
   CSI055 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                 0
                                                      0
   CSI065 0.000000e+00
                                            0
                                                                0 0.00000e+00
##
   CSI076 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0 0.000000e+00
##
               Otu07043 Otu07044 Otu07045 Otu07046
                                                            Otu07047 Otu07048
```

```
## CSI001 0.000000e+00
                                0
                                                   0 0.00000e+00
                                                                           0
  CSI012 0.000000e+00
                                         0
                                                   0.000000e+00
                                                                           0
                                0
  CSI022 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
  CSI044 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           Λ
  CSI055 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
  CSI065 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00
                                                                           0
   CSI076 0.000000e+00
                                0
                                                   0 0.00000e+00
          Otu07049 Otu07050 Otu07051 Otu07052
##
                                                     Otu07053 Otu07054
## CSI001
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
## CSI012
                           0
                                     0
                  0
                                               0 0.00000e+00
                                                                      0
## CSI022
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
## CSI044
                  0
                           0
                                     0
                                                                      0
                                               0 0.00000e+00
##
  CSI055
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                           0
## CSI065
                  0
                                     0
                                               0 0.00000e+00
                                                                      0
##
  CSI076
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
##
               Otu07055 Otu07056 Otu07057
                                                Otu07058
                                                              Otu07059 Otu07060
                                0
                                         0 0.000000e+00 0.000000e+00
##
  CSI001 2.345326e-05
                                                                               0
   CSI012 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
  CSI022 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                0
                                                                               0
## CSI044 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
  CSI055 0.000000e+00
                                0
                                         0 4.302833e-05 8.605667e-05
                                                                               0
   CSI065 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
## CSI076 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
               Otu07061 Otu07062
##
                                      Ot:1107063
                                                    Otu07064 Otu07065
## CSI001 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
  CSI012 1.724971e-05
                                0 0.000000e+00 0.000000e+00
                                                                     0
  CSI022 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI044 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI055 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
   CSI065 0.000000e+00
                                0 0.000000e+00 3.782005e-05
                                                                     0
##
  CSI076 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
##
               Otu07066
                            Otu07067 Otu07068 Otu07069
                                                            Otu07070
## CSI001 4.690652e-05 0.000000e+00
                                             0
                                                       0 0.000000000
  CSI012 0.000000e+00 1.724971e-05
                                             0
                                                       0 0.000000000
   CSI022 2.151556e-05 0.000000e+00
                                              0
                                                       0 0.000000000
   CSI044 1.971570e-05 0.000000e+00
                                             0
                                                       0 0.00000000
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000129085
  CSI065 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000000
  CSI076 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000000000
##
               Otu07071 Otu07072 Otu07073 Otu07074 Otu07075 Otu07076 Otu07077
## CSI001 2.345326e-05
                                         0
                                0
                                                   0
                                                            0
                                                                                0
## CSI012 3.449941e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                0
                                         0
                                                   0
                                                             0
                                                                      Λ
                                                                                0
  CSI044 0.000000e+00
   CSI055 0.000000e+00
                                         0
                                                             0
                                0
                                                   0
                                                                      0
                                                                                0
## CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
  CSI076 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                0
          Otu07078 Otu07079 Otu07080 Otu07081 Otu07082 Otu07083 Otu07084
##
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI012
                  0
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                                     0
                                               0
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                                                                            0
## CSI022
                  0
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                                                        0
                                                                  0
                                                                            0
## CSI044
                  0
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                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
```

```
## CSI076
                 0
                           0
                                     0
          Otu07085 Otu07086 Otu07087 Otu07088 Otu07089 Otu07090 Otu07091
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI044
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI055
                            0
                                     0
                                                                            0
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
## CSI076
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
          Otu07092 Otu07093 Otu07094 Otu07095 Otu07096
                                                               Otu07097 Otu07098
##
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0 2.345326e-05
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
                           0
                                     0
## CSI044
                  0
                                               0
                                                        0 0.000000e+00
                                                                                0
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
## CSI076
          Otu07099 Otu07100
                                  Otu07101 Otu07102 Otu07103
                                                                   Otu07104
                           0 0.000000e+00
                                                   0
                                                            0 2.345326e-05
## CSI001
                  0
## CSI012
                  0
                           0 1.724971e-05
                                                   0
                                                            0 0.000000e+00
## CSI022
                  Λ
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
## CSI044
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
## CSI055
                  Ω
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
## CSI065
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
                                                   0
## CSI076
                  0
                           0 0.00000e+00
                                                            0 0.000000e+00
          Otu07105 Otu07106 Otu07107 Otu07108 Otu07109 Otu07110 Otu07111
## CSI001
                  0
                           0
                                               0
                                                        0
                                     0
## CSI012
                           0
                                     0
                                               0
                                                        0
                  0
                                                                  0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI044
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
                  0
                           0
                                     0
                                               0
                                                        0
          Otu07112 Otu07113 Otu07114 Otu07115 Otu07116
##
                                                               Otu07117
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
## CSI044
                  Λ
                           0
                                     0
                                               0
                                                        0 0.00000e+00
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                  Ω
                           0
                                     0
                                               \cap
                                                        0 0.000000e+00
## CSI065
                            0
                                     0
  CSI076
                                                        0 0.00000e+00
              Otu07118 Otu07119 Otu07120 Otu07121
                                                        Otu07122 Otu07123
                                                   0 0.000000e+00
## CSI001 0.000000e+00
                                0
                                         0
                                                                           0
                                0
                                         0
                                                                           Λ
## CSI012 0.000000e+00
                                                   0 0.00000e+00
## CSI022 8.606222e-05
                                         0
                                0
                                                   0 0.00000e+00
                                         0
## CSI044 0.000000e+00
                                0
                                                   0 0.000000e+00
                                                                           0
  CSI055 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                0
                                         0
## CSI065 0.000000e+00
                                                   0 0.00000e+00
                                                   0 0.000000e+00
   CSI076 0.000000e+00
                                0
                                         0
                                                                           0
          Otu07124 Otu07125 Otu07126 Otu07127 Otu07128 Otu07129 Otu07130
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                           0
                                     0
                                               0
                                                        0
                                                                  0
## CSI012
                  0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI044
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
```

```
## CSI055
                             0
                                                                     0
                                                                              0
## CSI065
                                                0
                                                          0
                                                                     0
                                                                              0
                  0
                             0
                                      0
   CSI076
##
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
                                                                              0
##
           Otu07131
                         Otu07132 Otu07133 Otu07134 Otu07135 Otu07136
##
   CSI001
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
   CSI012
                                           0
                                                     0
                                                               0
                                                                         0
##
                  0 5.174912e-05
                  0 0.000000e+00
                                                               0
   CSI022
                                           0
                                                     0
                                                                         0
## CSI044
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
   CSI055
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                           0
                                                               0
##
   CSI065
                  0 0.000000e+00
                                                     0
                                                                         Λ
   CSI076
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
##
               Otu07137 Otu07138 Otu07139 Otu07140 Otu07141
                                                                 Otu07142 Otu07143
##
   CSI001 4.690652e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012 0.000000e+00
                                                               0
                                 0
                                           0
                                                     0
                                                                         0
                                                                                   0
   CSI022 0.000000e+00
                                                     0
                                                               0
                                                                                   0
                                 0
                                           0
                                                                         0
   CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
                                                                         0
   CSI065 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
                                 0
                                           0
                                                     0
                                                               0
##
   CSI076 0.000000e+00
                                                                                   0
##
           Otu07144 Otu07145 Otu07146 Otu07147 Otu07148 Otu07149 Otu07150
## CSI001
                  Ω
                            0
                                      0
                                                0
                                                          Λ
                                                                     0
                                                                              0
## CSI012
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI022
                  0
                             0
                                      0
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                                                          0
                                                                     0
                                                                              0
                                                          0
## CSI044
                  0
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                                      0
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## CSI055
                  0
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                                      0
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                                                          0
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                                                                              0
   CSI065
                  0
                             0
                                      0
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                                                          0
                                                                     0
                                                                              0
##
   CSI076
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
           Otu07151 Otu07152 Otu07153 Otu07154 Otu07155
                                                                 Otu07156 Otu07157
##
## CSI001
                             0
                                                          0 0.000000e+00
                  0
                                      0
                                                0
                                                                                   0
## CSI012
                  0
                             0
                                      0
                                                0
                                                          0 3.449941e-05
                                                                                   0
## CSI022
                  0
                             0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
##
   CSI044
                  0
                             0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
##
   CSI055
                  0
                             0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
   CSI065
                             0
                                                          0 0.000000e+00
##
                  0
                                      0
                                                0
                                                                                   0
                  0
                             0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
##
   CSI076
           Otu07158 Otu07159 Otu07160 Otu07161 Otu07162 Otu07163 Otu07164
##
## CSI001
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI012
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI022
                  0
                             0
                                                          0
                                                                     0
                                                                              0
                  0
                             0
                                                0
                                                          0
## CSI044
                                      0
                                                                     0
                                                                              0
                             0
                                                          0
                                                                              0
   CSI055
                  0
                                                                     0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
##
   CST065
                  0
##
   CSI076
                  0
                             0
                                                0
                                                          \cap
                                                                     0
                                                                              0
               Otu07165 Otu07166
                                                                Otu07169 Otu07170
##
                                       Otu07167 Otu07168
                                 0 0.000000000
   CSI001 2.345326e-05
                                                         0 0.000000000
   CSI012 0.000000e+00
                                 0 0.000000000
                                                         0 0.000000000
                                                                                  0
   CSI022 0.000000e+00
                                 0 0.000000000
                                                         0 0.000000000
                                                                                  0
   CSI044 0.000000e+00
                                 0 0.000000000
                                                         0 0.000000000
                                                                                  0
   CSI055 2.151417e-05
                                 0 0.000000000
                                                         0 0.000000000
                                                                                  0
   CSI065 0.000000e+00
                                 0 0.000000000
                                                         0 0.000000000
                                                                                  0
   CSI076 0.000000e+00
                                 0 0.000000000
                                                         0 0.0002023472
##
                                                                                  0
##
           Otu07171 Otu07172
                                   Otu07173 Otu07174
                                                           Otu07175
                                                                          Otu07176
## CSI001
                  0
                             0 0.000000e+00
                                                     0 0.000000e+00 0.000000e+00
## CSI012
                  0
                             0 0.000000e+00
                                                     0 1.724971e-05 0.000000e+00
```

```
## CSI022
                  0
                            0 4.303111e-05
                                                    0 0.000000e+00 0.000000e+00
## CST044
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 1.971570e-05
## CSI055
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI065
                  Ω
##
   CST076
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
           Otu07177 Otu07178 Otu07179 Otu07180 Otu07181 Otu07182 Otu07183
##
                            0
                                                0
## CSI001
                  0
                                      0
                                                          0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
## CSI044
                                                                             0
  CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                          0
## CSI065
                  0
                            0
                                      0
                                                0
                                                                    0
                                                                             0
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
           Otu07184 Otu07185 Otu07186 Otu07187 Otu07188 Otu07189 Otu07190
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI022
                  0
                            0
                                                          0
                                                                    0
                                      0
                                                0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                                          0
                                                                             0
## CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
  CST076
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                   Ω
                                                                             Ω
           Otu07191 Otu07192 Otu07193
                                            Otu07194 Otu07195 Otu07196 Otu07197
## CSI001
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
## CSI012
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                  0
                            0
                                                              0
                                                                                  0
## CSI022
                                      0 0.000000e+00
                                                                        0
## CSI044
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                                  0
## CSI055
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
## CSI065
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
                                                                        0
## CSI076
                                      0 0.000000e+00
           Otu07198 Otu07199 Otu07200 Otu07201 Otu07202 Otu07203 Otu07204
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
  CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                             0
                                                                    0
## CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
##
           Otu07205 Otu07206 Otu07207 Otu07208
                                                     Otu07209
                                                                   Otu07210
## CSI001
                  0
                            0
                                      0
                                                0 0.000000000 0.000000e+00
## CSI012
                  Ω
                            0
                                      0
                                                0 0.000000000 0.000000e+00
## CSI022
                            0
                                                0 0.000000000 0.000000e+00
## CSI044
                  0
                            0
                                      0
                                                0 0.000000000 0.000000e+00
                  0
                            0
                                      0
                                                0 0.00000000 0.000000e+00
## CSI055
                  0
                            0
                                      0
                                                0 0.00000000 0.000000e+00
## CSI065
                            0
                                      0
                                                0 0.000115627 0.000000e+00
## CSI076
           Otu07211 Otu07212 Otu07213 Otu07214 Otu07215 Otu07216 Otu07217
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
## CSI065
                  0
                                      0
                                                0
                                                                             0
## CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                             0
##
          Otu07218 Otu07219 Otu07220 Otu07221 Otu07222
                                                             Otu07223 Otu07224
```

```
## CSI001
                  0
                            0
                                                          0 0.00000e+00
                                                                                  0
  CSI012
                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
                                      0
  CSI022
##
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
                                                0
  CSI044
                  0
                            0
                                      0
                                                          0 0.000000e+00
                                                                                  0
##
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                  O
##
  CSI065
                  0
                                      0
                            0
                                      0
                                                0
##
   CSI076
                  0
                                                          0 0.00000e+00
                                                                                  0
                                                                Otu07230 Otu07231
                    Otu07226
##
           0tu07225
                              Otu07227 Otu07228 Otu07229
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  O
                            0
                                      0
                                                0
                                                                                  0
##
  CSI012
                  0
                                                          0 0.00000e+00
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
  CSI044
                  0
                            0
                                      0
                                                0
                                                                                  0
##
                                                          0 0.00000e+00
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
   CSI065
                            0
                                                0
                                                                                  0
##
                  0
                                      0
                                                          0 3.782005e-05
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
           0tu07232
                         Otu07233 Otu07234
                                                 Otu07235 Otu07236 Otu07237
  CSI001
##
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                   0
                                                                             0
##
   CSI012
                  0 0.000000e+00
                                          0 1.724971e-05
                                                                   0
                                                                             0
                  0 0.000000e+00
                                          0 0.000000e+00
  CSI022
                                                                   0
                                                                             0
##
##
   CSI044
                    0.000000e+00
                                          0 0.00000e+00
                                                                   0
                                                                             0
##
   CSI055
                    0.000000e+00
                                          0 0.00000e+00
                                                                   0
                                                                             0
   CSI065
                    0.000000e+00
                                          0 0.000000e+00
                                                                   0
                                                                             0
##
                  0 0.000000e+00
                                                                   0
                                                                             Λ
##
  CSI076
                                          0 0.00000e+00
                                                               Otu07242 Otu07243
##
           Otu07238
                         Otu07239
                                       Otu07240 Otu07241
## CSI001
                  0 2.345326e-05 0.000000e+00
                                                         0 0.00000e+00
                                                                                 0
  CSI012
                  0 0.000000e+00 1.724971e-05
                                                         0 1.724971e-05
                                                                                 0
  CSI022
                    2.151556e-05 0.000000e+00
                                                         0 0.00000e+00
                                                                                 0
##
                  0 0.000000e+00 0.000000e+00
##
   CSI044
                                                         0 0.00000e+00
                                                                                 0
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                         0 0.000000e+00
                                                                                 0
##
##
  CSI065
                  0 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
                                                                                 0
##
   CSI076
                  0 0.000000e+00 0.000000e+00
                                                         0 0.000000e+00
##
           0tu07244
                         Otu07245
                                      Otu07246 Otu07247 Otu07248 Otu07249
##
  CSI001
                  0 0.000000e+00 0.00000e+00
                                                        0
                                                                  0
                                                                           0
  CSI012
                  0 0.000000e+00 0.00000e+00
                                                        0
                                                                  0
                                                                           0
##
   CSI022
                  0 0.000000e+00 0.00000e+00
                                                        0
                                                                  0
                                                                           0
                  0 0.000000e+00 1.97157e-05
                                                        0
                                                                  0
                                                                           0
##
  CSI044
##
   CSI055
                  0 0.000000e+00 0.00000e+00
                                                        0
                                                                  0
                                                                           0
##
  CSI065
                    0.000000e+00 0.00000e+00
                                                        0
                                                                  0
                                                                           0
                    0.000000e+00 0.00000e+00
                                                        0
##
   CSI076
                                                                           0
##
                    Otu07251 Otu07252 Otu07253 Otu07254 Otu07255
           Otu07250
                                                                          0tu07256
                                                                    0 0.000000e+00
  CSI001
                  0
                            0
                                      0
                                                0
                                                          0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                            0
                                                0
                                                          0
##
   CSI044
                  0
                                      0
                                                                    0 0.00000e+00
                            0
                                                0
                                                          0
##
  CSI055
                  0
                                      0
                                                                    0 0.00000e+00
## CSI065
                                                          0
                  0
                            0
                                      0
                                                0
                                                                    0 0.00000e+00
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
           Otu07257
                    0tu07258
                              Otu07259
                                        Otu07260
                                                  0tu07261
                                                                Otu07262 Otu07263
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
  CSI012
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
                  0
                            0
                                      0
                                                0
                                                                                  0
##
  CSI022
                                                          0 0.00000e+00
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
## CSI055
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
```

```
## CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
          Otu07264 Otu07265 Otu07266 Otu07267 Otu07268
                                                               Otu07269 Otu07270
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
##
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0 2.151556e-05
                                                                                 0
                  0
                            0
                                     0
                                               0
                                                                                 0
##
  CSI044
                                                         0 0.00000e+00
                            0
                                               0
  CSI055
                  0
                                     0
                                                         0 0.00000e+00
                                                                                 0
## CSI065
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
  CSI076
                  0
                            0
                                     0
                                                         0 0.000000e+00
                                                                                 O
                                                Otu07274 Otu07275 Otu07276
##
               Otu07271 Otu07272 Otu07273
  CSI001 0.000000e+00
                                0
                                          0 0.000000000
                                                                  0
                                                                           0
                                0
                                                                  0
                                                                           0
   CSI012 0.000000e+00
                                          0 0.000000000
   CSI022 0.000000e+00
                                0
                                          0 0.0000000000
                                                                  0
                                                                           0
                                0
                                          0 0.000000000
                                                                  0
   CSI044 0.000000e+00
                                                                           0
   CSI055 4.302833e-05
                                0
                                                                  0
                                                                           0
                                          0 0.0001075708
   CSI065 0.000000e+00
                                0
                                          0 0.000000000
                                                                  0
                                                                           0
                                                                  0
##
   CSI076 0.000000e+00
                                0
                                          0 0.000000000
                                                                           0
##
           Otu07277 Otu07278
                                  Otu07279
                                                0tu07280
                                                             0tu07281
                            0 2.345326e-05 0.000000e+00 0.00000e+00
## CST001
                  0
## CSI012
                  0
                            0 1.724971e-05 0.000000e+00 0.00000e+00
##
  CSI022
                  Ω
                            0 0.000000e+00 0.000000e+00 0.00000e+00
  CSI044
                  0
                            0 0.000000e+00 0.000000e+00 0.00000e+00
## CSI055
                  Ω
                            0 0.000000e+00 0.000000e+00 6.45425e-05
                             0.000000e+00 3.782005e-05 0.00000e+00
##
   CSI065
                  0
##
  CST076
                  \cap
                            0 0.000000e+00 0.000000e+00 0.00000e+00
##
               Otu07282 Otu07283 Otu07284
                                                Otu07285 Otu07286 Otu07287
  CSI001 0.000000e+00
                                0
                                                                  0
                                                                           0
##
                                         0 0.00000e+00
                                0
                                                                  0
   CSI012 0.000000e+00
                                          0 1.724971e-05
                                                                           0
                                                                  0
                                0
                                          0 0.000000e+00
                                                                           0
   CSI022 4.303111e-05
   CSI044 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                           0
   CSI055 0.000000e+00
                                0
                                          0 2.151417e-05
                                                                  0
                                                                           0
   CSI065 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                           0
   CSI076 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                           0
##
               Otu07288 Otu07289 Otu07290 Otu07291 Otu07292 Otu07293 Otu07294
   CSI001 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI012 1.724971e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             Λ
                                                                       0
                                                                                 Λ
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI065 0.000000e+00
                                0
                                          0
                                                   0
                                                             Λ
                                                                       0
                                                                                 0
                                          0
                                                   0
                                                             0
   CSI076 0.000000e+00
                                0
                                                                                 0
                        Otu07296 Otu07297 Otu07298 Otu07299
##
          0t_{11}07295
                                                                    0t_{11}07300
##
  CSI001
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.0000000000
                                                   0
  CSI012
                  0 1.724971e-05
                                          0
                                                             0 0.000000000
##
  CSI022
                  0 0.00000e+00
                                          0
                                                   0
                                                             0 0.0001506089
                                         0
                                                   0
##
  CSI044
                  0 0.00000e+00
                                                             0
                                                               0.000000000
##
   CSI055
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                               0.000000000
                                          0
                                                   0
##
   CSI065
                  0 0.00000e+00
                                                               0.000000000
##
   CST076
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000000
##
           Otu07301 Otu07302
                                  Otu07303
                                               Otu07304 Otu07305 Otu07306
  CSI001
                            0 0.000000e+00 0.00000e+00
##
                  0
                                                                0
                                                                          0
## CSI012
                  0
                            0 1.724971e-05 0.00000e+00
                                                                0
                                                                          0
## CSI022
                  0
                            0 0.000000e+00 0.00000e+00
                                                                0
                                                                          0
## CSI044
                  0
                            0 0.000000e+00 7.88628e-05
                                                                0
                                                                          0
```

```
## CSI055
                           0 0.000000e+00 0.00000e+00
## CSI065
                            0 0.000000e+00 0.00000e+00
                                                                          0
                  0
                                                                 0
  CSI076
##
                  0
                            0 0.000000e+00 0.00000e+00
                                                                0
##
          Otu07307 Otu07308 Otu07309 Otu07310 Otu07311 Otu07312 Otu07313
## CST001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
                  0
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
  CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
                                               0
                                                         0
##
  CSI065
                  0
                            0
                                     0
                                                                   Λ
                                                                            0
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0
                                  Otu07316 Otu07317 Otu07318 Otu07319 Otu07320
##
          Otu07314 Otu07315
##
  CSI001
                  0
                            0 2.345326e-05
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI012
                                                             0
                  0
                            0 1.724971e-05
                                                   0
                                                                       0
                                                                                 0
## CSI022
                  0
                            0 0.000000e+00
                                                             0
                                                                                 0
                                                    0
                                                                       0
## CSI044
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                   0
                                                             0
##
  CSI055
                  0
                            0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI065
                            0 0.00000e+00
                                                    0
                                                             0
                                                                                 0
                                                             0
                                                                                 0
##
   CST076
                  0
                            0 0.000000e+00
                                                   0
                                                                       0
##
          Otu07321 Otu07322
                                 Otu07323 Otu07324 Otu07325 Otu07326
## CSI001
                  Λ
                            0 0.00000e+00
                                                  Ω
                                                            Ω
                                                                      0
## CSI012
                            0 0.00000e+00
                                                                      0
## CSI022
                  0
                            0 0.00000e+00
                                                  0
                                                            0
                                                                      0
                  0
                                                  0
## CSI044
                            0 5.91471e-05
                  Ω
                                                  0
## CST055
                            0 0.00000e+00
                                                            \cap
  CSI065
                  0
                            0 0.00000e+00
                                                  0
                                                            0
                                                                      0
##
                  0
                            0 0.00000e+00
                                                  0
                                                            0
                                                                      0
   CSI076
               Otu07327 Otu07328
                                      Otu07329 Otu07330 Otu07331 Otu07332
  CSI001 0.000000e+00
                                0 0.0001172663
                                                                 0
                                                        0
  CSI012 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                           0
  CSI022 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                           0
   CSI044 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                           0
   CSI055 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                           0
                                                                  0
   CSI065 0.000000e+00
                                0 0.000000000
                                                        0
                                                                           0
   CSI076 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                     Otu07337 Otu07338 Otu07339
          Otu07333 Otu07334 Otu07335 Otu07336
##
## CSI001
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
## CSI012
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
                  Ω
                            Λ
                                     0
                                                                       0
                                                                                 O
## CSI044
                                               0 0.00000e+00
                            0
  CSI055
                  0
                                               0 0.00000e+00
## CSI065
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CST076
                  0
                            0
                                               0 0.00000e+00
                        Otu07341
                                      Otu07342 Otu07343 Otu07344
##
          Otu07340
                                                                        Otu07345
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                 0 0.00000e+00
## CSI012
                  0 1.724971e-05 0.000000e+00
                                                        0
                                                                 0 0.00000e+00
   CSI022
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                 0 0.00000e+00
   CSI044
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                 0 0.000000e+00
  CSI055
                  0 0.000000e+00 2.151417e-05
                                                        0
                                                                 0 4.302833e-05
##
   CSI065
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                 0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
                                                        0
##
                                                                 0.0.000000e+00
##
          Otu07346 Otu07347 Otu07348 Otu07349 Otu07350 Otu07351 Otu07352
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
```

```
## CSI022
                   0
                             0
                                       0
                                                                               0
  CSI044
                   0
                             0
                                                 0
                                                           0
##
                                       0
                                                                     0
                                                                               0
   CSI055
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CST076
                   0
                             0
                                                 0
                                                                               0
           Otu07353 Otu07354 Otu07355
                                             Otu07356
                                                                           0tu07358
##
                                                            Otu07357
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI001
                   0
                             0
## CSI012
                   0
                             0
                                       0 0.000000e+00 0.000000e+00 3.449941e-05
##
   CSI022
                   0
                             0
                                         0.000000e+00 0.000000e+00 0.000000e+00
                             0
                                         0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI044
                   0
   CSI055
                   0
                             0
                                         4.302833e-05 0.000000e+00 0.000000e+00
   CSI065
                   0
                             0
                                         0.000000e+00 1.134602e-04 0.000000e+00
##
##
   CSI076
                   0
                             0
                                         0.000000e+00 0.000000e+00 0.000000e+00
                    Otu07360 Otu07361
                                             Otu07362 Otu07363 Otu07364 Otu07365
##
           Otu07359
## CSI001
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                                                                                    0
##
   CSI012
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                                                                                    0
                             0
                                       0 0.000000e+00
                                                               0
                                                                                    0
##
   CSI022
                   0
                                                                         0
   CSI044
                   0
                             0
                                         0.000000e+00
                                                               0
                                                                          0
                                                                                    0
                                         0.000000e+00
   CSI055
                   0
                             0
                                                               0
                                                                                   0
##
                                                                         0
##
   CSI065
                   0
                             0
                                         0.00000e+00
                                                                0
                                                                         0
                                                                                    0
##
   CST076
                   Λ
                             0
                                       0 5.781349e-05
                                                               0
                                                                         0
                                                                                    0
##
           Otu07366
                     Otu07367
                               Otu07368 Otu07369
                                                       Otu07370
                                                                      Otu07371
## CSI001
                                                 0 0.000000000 0.000000e+00
                   0
                             0
                                       0
   CSI012
                             0
                                                 0 0.000000000 0.000000e+00
##
                   0
                                       0
## CSI022
                   0
                             0
                                       0
                                                 0 0.0001075778 0.000000e+00
   CSI044
                   0
                             0
                                       0
                                                 0 0.000000000 0.000000e+00
   CSI055
                   0
                             0
                                       0
                                                 0 0.000000000 0.000000e+00
##
                             0
                                                 0 0.000000000 0.000000e+00
   CSI065
                   0
                                       0
                             0
   CSI076
                   0
                                       0
                                                 0 0.000000000 0.000000e+00
##
           Otu07372 Otu07373
##
                              Otu07374 Otu07375
                                                       Otu07376 Otu07377 Otu07378
## CSI001
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
##
   CSI012
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                         0
                                                                                    0
##
   CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
                   0
                             0
                                                                                   0
##
   CSI044
                                       0
                                                 0 0.00000e+00
                                                                         0
   CSI055
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
##
   CSI065
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
##
##
   CSI076
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
##
           Otu07379
                     Otu07380
                               Otu07381 Otu07382 Otu07383 Otu07384
                                                                       0tu07385
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI012
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                   0
                                       0
   CSI022
                             0
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                                                                               0
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                                       0
  CSI044
                   0
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                                       0
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##
   CSI055
                   0
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                                                                     0
                                                                               0
##
   CSI065
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI076
                             0
                         Otu07387 Otu07388 Otu07389 Otu07390 Otu07391 Otu07392
           Otu07386
##
##
   CSI001
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI012
                                                               0
                                                                                    0
##
                   0 0.000000e+00
                                           0
                                                     0
                                                                         0
   CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI044
                     0.000000e+00
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
                    0.000000e+00
   CSI055
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
##
   CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                          0
                                                                                    0
##
  CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                          0
                                                                                   0
##
           Otu07393 Otu07394 Otu07395 Otu07396 Otu07397 Otu07398 Otu07399
```

```
## CSI001
                  0
                            0
                                                                              0
## CSI012
                  0
                                                          0
                            0
                                      0
                                                0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                          0
                                                                              0
                                                0
   CSI044
                  0
                            0
                                      0
                                                          0
                                                                    0
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##
##
   CSI055
                  0
                            0
                                      0
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                                                                              0
   CSI065
                            0
                                                0
                                                                    0
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##
                   0
                                      0
                            0
                                      0
                                                                    0
##
   CSI076
                                                                              0
               Otu07400 Otu07401 Otu07402 Otu07403
                                                           Otu07404 Otu07405
##
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                             0
                                 0
                                           0
                                                                             Λ
   CSI012 0.000000e+00
                                                     0 0.00000e+00
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                             0
   CSI044 0.000000e+00
                                 0
                                          0
                                                     0 0.000000e+00
                                                                             0
   CSI055 0.000000e+00
                                 0
                                           0
                                                      2.151417e-05
                                                                             0
                                 0
                                                     0 0.00000e+00
   CSI065 0.000000e+00
                                           0
                                                                             0
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0 0.000000e+00
                                                                             0
##
               Otu07406 Otu07407
                                       Otu07408 Otu07409
                                                                Otu07410 Otu07411
   CSI001 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.000000e+00
##
   CSI012 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI022 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
## CSI044 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.000000e+00
   CSI055 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI065 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.000000e+00
                                                         0 5.781349e-05
  CSI076 0.000000e+00
                                 0 0.000000e+00
                                                                                 0
           Otu07412 Otu07413 Otu07414 Otu07415 Otu07416 Otu07417
##
                                                                           Otu07418
                                                                    0 0.00000e+00
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 2.151556e-05
                            0
                                                0
                                                          0
##
   CSI044
                  0
                                      0
                                                                    0 0.00000e+00
                                                0
   CSI055
                  0
                            0
                                      0
                                                          0
                                                                    0 0.000000e+00
##
## CSI065
                   0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
   CSI076
                  0
                            0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
           Otu07419
                         Otu07420
                                       Otu07421 Otu07422 Otu07423 Otu07424
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                             0
  CSI012
                  0 0.000000e+00 5.174912e-05
                                                                   0
                                                                             0
##
                                                         0
   CSI022
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                             0
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
##
   CSI044
                                                                             0
##
   CSI055
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                             0
##
  CSI065
                  0 0.000000e+00 0.000000e+00
                                                         Λ
                                                                   0
                                                                             0
                   0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
##
   CSI076
##
           Otu07425 Otu07426 Otu07427 Otu07428 Otu07429 Otu07430 Otu07431
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
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                                                                              0
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
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                                                                              0
                            0
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                                                          0
                                                                    0
##
  CSI044
                  0
                                      0
                                                                              0
## CSI055
                            0
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                  0
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                                                          0
                                                                              0
## CSI065
                  0
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                                      0
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                                                                              0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu07432 Otu07433 Otu07434 Otu07435 Otu07436 Otu07437
                                                                      Otu07438
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
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                                                                              0
  CSI022
                  0
                            0
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##
## CSI044
                  0
                            0
                                      0
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                                                          0
                                                                    0
                                                                              0
## CSI055
                  0
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                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
```

```
## CSI076
                  0
                            0
                                      0
                                                         0
                                                                   0
##
          Otu07439 Otu07440
                                  Otu07441 Otu07442 Otu07443 Otu07444 Otu07445
                            0 7.035977e-05
## CSI001
                  0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI012
                                                                                 0
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
## CSI022
                  0
                            0 0.000000e+00
                                                    0
                                                              0
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                                                                                  0
                  0
                                                    0
                                                              0
                                                                                  0
  CSI044
                            0 0.00000e+00
                                                                        0
##
                                                    0
                                                              0
  CSI055
                  0
                            0 0.000000e+00
                                                                                  0
                            0 0.000000e+00
## CSI065
                  0
                                                    0
                                                              0
                                                                        0
                                                                                 0
##
  CSI076
                  Ω
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  O
##
               Otu07446 Otu07447 Otu07448 Otu07449
                                                           Otu07450 Otu07451
  CSI001 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
  CSI012 0.000000e+00
                                0
                                          0
                                                                            0
                                                    0 0.00000e+00
   CSI022 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                            0
                                                    0 0.00000e+00
   CSI044 0.000000e+00
                                0
                                          0
                                                                            0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                            0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
                                0
                                          0
                                                    0 0.000000e+00
   CSI076 2.890675e-05
                                                                            0
##
               Otu07452 Otu07453 Otu07454 Otu07455
                                                      Otu07456 Otu07457 Otu07458
## CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
## CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
## CSI055 0.000000e+00
                                                                                  0
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
  CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
               Otu07459 Otu07460 Otu07461 Otu07462 Otu07463
                                                                Otu07464
## CSI001 2.345326e-05
                                0
                                          0
                                                    0
                                                                        0
                                                              0
                                          0
                                                    0
                                                              0
   CSI012 0.000000e+00
                                0
                                                                        0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI076 0.000000e+00
                                0
                                          0
                                                              0
                                                                        0
##
               Otu07465 Otu07466
                                       0 \pm 1107467
                                                     0tu07468
                                                                   0 \pm 1107469
  CSI001 0.000000e+00
                                0 0.000000e+00 0.000000e+00 4.690652e-05
  CSI012 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI044 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI076 2.890675e-05
          Otu07470 Otu07471 Otu07472 Otu07473 Otu07474 Otu07475 Otu07476
##
## CSI001
                  0
                            0
                                      0
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                                                                   0
                                                                             0
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                                      0
## CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI044
                  0
                            0
                                                         0
                                                                   0
                                      0
                                                0
                                                                             0
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
                                                0
                                                         0
                                                                   0
##
   CSI065
                  0
                                      0
                                                                             0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
               Otu07477
                             Otu07478 Otu07479 Otu07480 Otu07481
                                                                         0tu07482
  CSI001 2.345326e-05 0.000000e+00
                                                        0
                                                                  0 0.000000e+00
                                              0
## CSI012 3.449941e-05 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
## CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
## CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 3.943140e-05
```

```
## CSI055 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 3.782005e-05
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
##
               Otu07483 Otu07484 Otu07485 Otu07486 Otu07487 Otu07488 Otu07489
## CSI001 4.690652e-05
                                0
                                          0
                                                    0
                                                              0
                                                                       0
## CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI022 0.000000e+00
                                          0
                                                              0
                                                                                 0
                                0
                                                    0
## CSI044 0.000000e+00
                                0
                                          0
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                                                              0
                                                                       0
                                                                                 0
   CSI055 0.000000e+00
                                0
                                          0
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                                                                                 O
                                0
                                          Λ
                                                    Λ
                                                              Λ
                                                                                 Λ
   CSI065 0.000000e+00
                                                                       Λ
   CSI076 0.000000e+00
                                                              0
                                                                                 0
##
          Otu07490 Otu07491 Otu07492 Otu07493
                                                      Otu07494 Otu07495 Otu07496
##
  CSI001
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                       0
                                                                                 0
## CSI012
                            0
                                                                       0
                  0
                                      0
                                                0 1.724971e-05
                                                                                 0
## CSI022
                  0
                                                0 0.000000e+00
                                                                       0
                                                                                 0
                            0
                                      0
## CSI044
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
                  0
                            0
                                                                       0
                                                                                 0
##
  CSI055
                                      0
                                                0 0.00000e+00
##
  CSI065
                            0
                                                0 0.00000e+00
                                                                                 0
                            0
                                                                                 0
##
   CST076
                  0
                                      0
                                                0.000000e+00
                                                                       0
##
          Otu07497
                         Otu07498 Otu07499 Otu07500 Otu07501 Otu07502 Otu07503
##
  CSI001
                  0 4.690652e-05
                                          Λ
                                                    Ω
                                                              Λ
                                                                       0
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## CSI012
                  0 0.000000e+00
                                          0
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                                                                                 0
## CSI022
                  0 0.000000e+00
                                          0
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                                                                                 0
                                          0
                                                    0
## CSI044
                  0 0.00000e+00
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                                          0
                                                    0
                                                              0
                                                                                 O
## CSI055
                  0 0.00000e+00
                                                                       0
   CSI065
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                 0
##
   CST076
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       Λ
                                                                                 0
                                                Otu07507 Otu07508 Otu07509
##
          Otu07504 Otu07505
                                  Otu07506
## CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI012
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI022
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CST044
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CSI055
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
  CSI065
                            0 0.000000e+00 0.000000e+00
                                                                  0
##
                  0
                                                                            0
                  0
                            0 0.000000e+00 2.890675e-05
                                                                  0
                                                                            0
##
   CSI076
##
          Otu07510 Otu07511 Otu07512 Otu07513 Otu07514
                                                                Otu07515 Otu07516
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0 2.345326e-05
## CSI012
                  Ω
                            Λ
                                      0
                                                0
                                                         0 0.000000e+00
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## CSI022
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                                                         0 0.000000e+00
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                  0
                            Λ
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                                                                                 O
## CST044
                                                         0.000000e+00
                            0
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                                                0
  CSI055
                  0
                                                         0 0.00000e+00
## CSI065
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
##
   CST076
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                 0
          Otu07517 Otu07518 Otu07519 Otu07520 Otu07521
##
                                                                Otu07522 Otu07523
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
## CSI012
                  0
                                                0
                                                         0 0.000000e+00
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                            0
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##
  CSI022
                  0
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                                                         0 0.00000e+00
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## CSI044
                  0
                                                         0 0.00000e+00
##
  CSI055
                  0
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                                      0
                                                0
                                                         0 0.000000e+00
                                                                                 0
##
  CSI065
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
                  0
                            0
                                      0
                                                0
##
                                                         0.0.000000e+00
                                                                                 0
##
          Otu07524 Otu07525
                                  Otu07526 Otu07527 Otu07528 Otu07529 Otu07530
## CSI001
                  0
                            0 0.000000000
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI012
                  0
                            0 0.000000000
                                                    0
                                                              0
                                                                       0
                                                                                 0
```

```
## CSI022
                            0 0.0001290933
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI044
                            0 0.0000000000
                  0
                                                    0
                                                                                  0
##
                                                              0
                                                                        0
  CSI055
                              0.000000000
##
                  0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI065
                  0
                              0.000000000
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                            0
##
   CST076
                            0 0.0000000000
                                                    0
                                                              0
                                                                        0
                                                                                  0
               Otu07531 Otu07532 Otu07533 Otu07534 Otu07535 Otu07536 Otu07537
##
  CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        Λ
   CSI055 2.151417e-05
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
##
           Otu07538
                         Otu07539 Otu07540
                                                 Otu07541 Otu07542
                                                                         0tu07543
## CSI001
                  0 2.345326e-05
                                          0 0.000000e+00
                                                                   0 0.000000e+00
##
   CSI012
                  0 0.00000e+00
                                          0 0.000000e+00
                                                                   0 3.449941e-05
##
   CSI022
                  0 4.303111e-05
                                          0 0.00000e+00
                                                                   0 0.00000e+00
   CSI044
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                   0 0.00000e+00
   CSI055
                                          0 2.151417e-05
##
                  0.000000e+00
                                                                   0 0.00000e+00
##
   CSI065
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                   0 0.00000e+00
##
   CST076
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                   0 0.000000e+00
##
               Otu07544 Otu07545 Otu07546 Otu07547 Otu07548 Otu07549
  CSI001 0.000000e+00
                                                    0
                                                              0
##
                                0
                                          0
                                                                        0
   CSI012 0.000000e+00
                                                              0
                                0
                                          0
                                                    0
                                                                        0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
##
                                                              0
                                                                        0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
##
##
               Otu07550 Otu07551 Otu07552
                                                 Otu07553 Otu07554 Otu07555
##
   CSI001 2.345326e-05
                                0
                                          0 0.00000e+00
                                                                   0
                                                                             0
   CSI012 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                   0
                                                                             0
   CSI022 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                   0
                                                                             0
                                0
                                                                   0
                                                                             0
   CSI044 0.000000e+00
                                          0 0.00000e+00
   CSI055 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                   0
                                                                             0
   CSI065 0.000000e+00
                                0
                                                                   0
                                                                             0
##
                                          0 0.00000e+00
##
   CSI076 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                   0
                                                                             0
##
           Otu07556 Otu07557 Otu07558
                                             Otu07559 Otu07560 Otu07561 Otu07562
## CSI001
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                  0
                                                                                  0
  CSI012
                            0
                                                              0
                                                                        0
                                                                                  0
##
                  0
                                      0 0.000000e+00
  CSI022
                            0
                                      0 0.000000e+00
                                                              0
                                                                                  0
                  0
                                                                        0
  CSI044
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI055
                  0
                            0
                                      Λ
                                        2.151417e-05
                                                              0
                                                                        0
                                                                                  0
                            0
                                                              0
                                                                        Λ
                                                                                  0
##
   CSI065
                  Λ
                                      0 0.000000e+00
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
##
   CSI076
                                                                                  0
               Otu07563 Otu07564 Otu07565 Otu07566 Otu07567
##
                                                                Otu07568
                                                                          Otu07569
##
   CSI001 2.345326e-05
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
           Otu07570 Otu07571 Otu07572 Otu07573
                                                      Otu07574 Otu07575 Otu07576
```

```
## CSI001
                                                0 0.00000e+00
                                                                         0
                                                                                   0
## CSI012
                  0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
                            0
                                      0
## CSI022
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
                                                                                   0
  CSI044
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
##
##
   CSI055
                  0
                            0
                                                0 0.000000e+00
                                                                         0
                                                                                   0
                            0
                                                0 0.000000e+00
                                                                         0
                                                                                   0
##
   CSI065
                   0
                                      0
                            0
                                      0
##
   CSI076
                                                0 0.00000e+00
##
               Otu07577 Otu07578 Otu07579
                                                 Otu07580 Otu07581 Otu07582
   CSI001 0.000000e+00
                                 0
                                           0 0.00000e+00
                                                                   0
                                                                             0
                                 0
                                                                   0
                                                                             0
   CSI012 1.724971e-05
                                           0 0.000000e+00
   CSI022 0.000000e+00
                                 0
                                           0 0.00000e+00
                                                                   0
                                                                             0
   CSI044 0.000000e+00
                                 0
                                                                   0
                                                                             0
                                           0 0.00000e+00
   CSI055 0.000000e+00
                                 0
                                           0 0.000000e+00
                                                                   0
                                                                             0
                                 0
                                           0 0.00000e+00
                                                                   0
   CSI065 0.000000e+00
                                                                             0
   CSI076 0.000000e+00
                                 0
                                           0 0.000000e+00
                                                                   0
                                                                             0
##
               Otu07583 Otu07584 Otu07585 Otu07586 Otu07587 Otu07588 Otu07589
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
##
   CSI001 2.345326e-05
                                                                                   0
   CSI012 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI022 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
                                 0
                                                                         0
## CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
## CSI076 0.000000e+00
                                 0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                           0
           Otu07590 Otu07591 Otu07592
                                             Otu07593 Otu07594 Otu07595 Otu07596
##
## CSI001
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI012
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI022
                  0
                            0
                                        2.151556e-05
                                                               0
                                                                         0
                                                                                   0
                  0
                            0
                                                               0
                                                                                   0
##
  CSI044
                                      0 0.00000e+00
                                                                         0
                            0
                                                               0
                                                                                   0
## CSI055
                  0
                                      0 0.000000e+00
                                                                         0
## CSI065
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI076
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
##
           Otu07597 Otu07598
                                   Otu07599 Otu07600 Otu07601 Otu07602 Otu07603
## CSI001
                  0
                            0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI012
                  0
                            0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
                                                     0
  CSI022
                  0
                              0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
                  0
                            0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI044
## CSI055
                  0
                            0 0.000000e+00
                                                     0
                                                               0
                                                                                   0
## CSI065
                  0
                            0 0.000000e+00
                                                     0
                                                               Λ
                                                                         0
                                                                                   0
                  0
                              2.890675e-05
                                                               0
                                                                         0
                                                                                   0
##
   CSI076
##
           Otu07604 Otu07605 Otu07606 Otu07607
                                                       Otu07608 Otu07609
                            0
## CSI001
                  0
                                      0
                                                0 2.345326e-05
                                                                         0
## CSI012
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
## CSI022
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                  0
                            0
##
  CSI044
                                      0
                                                0 0.000000e+00
                                                                         0
## CSI055
                            0
                  0
                                      0
                                                0 0.00000e+00
                                                                         0
## CSI065
                            0
                                      0
                                                0 0.000000e+00
                  0
                                                                         0
##
   CSI076
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
##
               Otu07610 Otu07611 Otu07612 Otu07613 Otu07614 Otu07615
                                                                           Otu07616
## CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012 1.724971e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
```

```
## CSI076 0.000000e+00
                                        0
                                                  0
                                                            0
                                                                     0
##
          Ot:1107617
                       Otu07618 Otu07619 Otu07620 Otu07621 Otu07622 Otu07623
                 0 0.00000e+00
## CSI001
                                        0
                                                 0
                                                           0
                                                                    0
## CSI012
                 0 0.00000e+00
                                        0
                                                 0
                                                           Ω
                                                                    Λ
                                                                              0
## CSI022
                 0 0.00000e+00
                                        0
                                                 0
                                                           0
                                                                    0
                                                                              0
                                        0
                                                 0
## CSI044
                  0 0.00000e+00
                                                           \cap
                                                                    0
                                                                              0
## CSI055
                  0 0.00000e+00
                                                                              0
## CSI065
                  0 7.56401e-05
                                        0
                                                 0
                                                           0
                                                                    0
                                                                              0
## CSI076
                  0 0.00000e+00
                                        0
                                                 0
                                                           Ω
                                                                    Λ
                        Otu07625 Otu07626
                                               Otu07627 Otu07628 Otu07629
##
          Otu07624
## CSI001
                  0 2.345326e-05
                                         0 0.00000e+00
                                                                0
## CSI012
                  0 0.000000e+00
                                                                0
                                                                          0
                                         0 0.00000e+00
## CSI022
                  0 0.000000e+00
                                         0 2.151556e-05
                                                                0
                                                                          0
                                                                0
## CSI044
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                          0
## CSI055
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
## CSI065
                 0 0.000000e+00
                                         0 0.00000e+00
                                                                0
                                                                          0
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
##
  CSI076
                                                                          0
          Otu07630 Otu07631 Otu07632 Otu07633 Otu07634 Otu07635
                                                                       Otu07636
## CSI001
                 0
                           0
                                    0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI022
                  Ω
                           0
                                    0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI044
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI055
                           0
                                              0
                                                        0
                  0
                                    0
                                                                 0 0.00000e+00
## CSI065
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
                                              0
                                                        0
## CSI076
                  Λ
                           0
                                     0
                                                                 0 0.00000e+00
          Otu07637 Otu07638 Otu07639 Otu07640
                                                    Otu07641 Otu07642
## CSI001
                 0
                           0
                                    0
                                              0 2.345326e-05
                                                                     0
## CSI012
                  0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
## CSI022
                  0
                           0
                                     0
                                              0 2.151556e-05
                                                                     0
## CSI044
                 0
                           0
                                    0
                                              0 0.00000e+00
## CSI055
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
## CSI065
                 0
                           0
                                     0
                                              0 0.000000e+00
                           0
   CSI076
                                     0
                                              0 0.00000e+00
              Otu07643 Otu07644 Otu07645 Otu07646 Otu07647 Otu07648 Otu07649
##
## CSI001 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI012 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI022 2.151556e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI044 0.00000e+00
                                         0
                                                  0
                                                            Λ
                                                                               0
                               0
                                                                     0
  CSI055 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                               0
  CSI065 0.000000e+00
                                         Λ
                                                  Ω
                                                                     0
                                                                               0
                               0
                                                            0
   CSI076 0.000000e+00
                                         0
##
                        Otu07651 Otu07652 Otu07653
                                                        Otu07654 Otu07655
          0t.1107650
## CSI001
                 0 2.345326e-05
                                         0
                                                  0 0.000000e+00
                                                                          0
                                         0
## CSI012
                 0 0.000000e+00
                                                  0 3.449941e-05
                                                                          0
## CSI022
                 0 0.00000e+00
                                         0
                                                  0 0.00000e+00
## CSI044
                                         0
                                                                          0
                 0 0.00000e+00
                                                  0 0.00000e+00
## CSI055
                 0 0.00000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
                                         0
## CSI065
                  0 0.00000e+00
                                                  0 0.000000e+00
                 0 0.000000e+00
                                         0
                                                  0 0.000000e+00
                                                                         0
##
          Otu07656 Otu07657 Otu07658 Otu07659 Otu07660 Otu07661
                                                                       Otu07662
## CSI001
                 0
                           0
                                    0
                                              0
                                                        0
                                                                 0 2.345326e-05
                           0
## CSI012
                  0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI022
                 0
                           0
                                    0
                                              0
                                                        0
                                                                 0.000000e+00
## CSI044
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.000000e+00
```

```
## CSI055
                  0
                            0
                                      0
                                                         0
                                                                   0 0.00000e+00
  CSI065
                                               0
                                                         0
                                                                   0 0.000000e+00
##
                  0
                            0
                                      0
   CSI076
##
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
               Otu07663
                             Otu07664 Otu07665
                                                     Otu07666 Otu07667 Otu07668
                                              0 0.000000e+00
   CSI001 0.000000e+00 0.000000e+00
                                                                      0
   CSI012 0.000000e+00 0.000000e+00
                                                                      0
                                              0 1.724971e-05
                                                                                0
   CSI022 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0.000000e+00
                                                                      0
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
                                                                      Λ
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                                0
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
           Otu07669 Otu07670 Otu07671
##
                                            0tu07672
                                                         Otu07673
                                                                       Otu07674
##
   CSI001
                  0
                            0
                                      0 0.000000e+00 0.00000e+00 2.345326e-05
##
   CSI012
                  0
                            0
                                      0 0.000000e+00 0.00000e+00 0.000000e+00
  CSI022
                  0
                                      0 4.303111e-05 0.00000e+00 0.000000e+00
##
                            0
   CSI044
                  0
                            0
                                      0 0.000000e+00 0.00000e+00 0.000000e+00
##
                            0
                                      0 0.000000e+00 0.00000e+00 0.000000e+00
##
   CSI055
                  0
   CSI065
                  0
                            0
                                        0.000000e+00 7.56401e-05 0.000000e+00
##
                            0
                                      0 0.000000e+00 0.00000e+00 0.000000e+00
##
   CST076
                  0
##
           Otu07675
                    Otu07676 Otu07677
                                       Otu07678
                                                      Otu07679 Otu07680
##
  CSI001
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
  CSI012
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
## CSI022
                  0
                            0
                                      0
                                               0.000000e+00
                                                                       0
##
   CSI044
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
##
   CST055
                  0
                            0
                                      0
                                               0 6.454250e-05
                                                                       0
##
   CSI065
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
   CSI076
                  0
                            0
                                     0
                                               0 2.890675e-05
                                                                       0
##
##
               Otu07681
                            Otu07682 Otu07683
                                                   Otu07684 Otu07685
                                                                      Otu07686
   CSI001 0.000000e+00 0.00000e+00
                                                                              0
##
                                             0 0.00000e+00
                                                                     0
   CSI012 0.000000e+00 0.00000e+00
                                             0 1.724971e-05
                                                                     0
                                                                              0
   CSI022 0.000000e+00 0.00000e+00
                                             0 0.00000e+00
                                                                     0
                                                                              0
   CSI044 0.000000e+00 0.00000e+00
                                             0 0.000000e+00
                                                                     0
                                                                              0
   CSI055 0.000000e+00 6.45425e-05
                                               0.000000e+00
                                                                     0
                                                                              0
   CSI065 0.000000e+00 0.00000e+00
                                                                     0
                                                                              0
                                             0 0.00000e+00
   CSI076 0.000000e+00 0.00000e+00
                                             0 0.00000e+00
                                                                     0
                                                                              0
                                                      Otu07691 Otu07692 Otu07693
          Otu07687 Otu07688 Otu07689 Otu07690
##
## CSI001
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
  CSI012
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
  CSI022
                  0
                            0
                                               0 4.303111e-05
                                                                                 0
                                      0
                                                                       0
                            0
                                     0
                                                                                 O
##
  CST044
                  \cap
                                               0 0.00000e+00
                                                                       0
                            0
                                                                                 0
   CSI055
                  0
                                      0
                                               0 0.00000e+00
   CSI065
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
##
   CST076
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                                  Otu07696 Otu07697 Otu07698 Otu07699
##
          Otu07694 Otu07695
                                                                         Otu07700
##
  CSI001
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI012
                  0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
                            0 0.00000e+00
##
   CSI022
                  0
                            0
                             2.151556e-05
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
##
   CSI044
                  0
                              0.000000e+00
                                                   0
                                                             0
                                                                       0
                              0.000000e+00
##
   CSI055
                  0
                            0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI065
                  0
                            0
                              0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
                  0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CST076
                            0
                              0.000000e+00
##
           Otu07701 Otu07702
                                  Otu07703 Otu07704
                                                          Otu07705 Otu07706
## CSI001
                  0
                            0 0.000000000
                                                   0.000000e+00
                                                                           0
## CSI012
                  0
                            0 0.000000000
                                                   0 0.00000e+00
                                                                           0
```

```
## CSI022
                             0 0.000000000
                                                      0 0.00000e+00
                                                                              0
##
  CSI044
                   0
                             0 0.000000000
                                                      0 0.00000e+00
                                                                               0
  CSI055
                               0.000000000
                                                      0 4.302833e-05
##
                   0
                                                                               0
  CSI065
                   0
                             0
                               0.000000000
                                                      0 0.000000e+00
                                                                               0
##
##
   CST076
                   0
                             0
                               0.000000000
                                                      0 2.890675e-05
                                                                               0
           Otu07707 Otu07708
                               Otu07709 Otu07710 Otu07711 Otu07712
                                                                            Otu07713
##
                                                 0
                                                                      0 0.000000e+00
## CSI001
                   0
                             0
                                       0
                                                           0
## CSI012
                                                           0
                   0
                             0
                                       0
                                                 0
                                                                      0 0.00000e+00
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
                             0
                                                 0
                                                           0
##
   CSI044
                   0
                                       0
                                                                      0 0.000000e+00
   CSI055
                   0
                             0
                                       0
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                                                           0
                                                                      0 0.00000e+00
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
           Otu07714
                     Otu07715
                               Otu07716 Otu07717
                                                   Otu07718 Otu07719 Otu07720
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
   CSI012
                   0
                             0
                                       0
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                                                           0
                                                                      0
                                                                                0
   CSI022
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
                                       0
##
   CSI044
                   0
                             0
                                       0
                                                 0
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                                                                                0
   CSI055
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
                                       0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
   CST076
                   Λ
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu07721
                     Otu07722
                               Otu07723 Otu07724 Otu07725 Otu07726
## CSI001
                             0
                                                 0
                                                           0
                                                                      0
                   0
                                       0
                                                                                0
   CSI012
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
                   0
                                       0
                                                                      0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                                0
   CSI044
                   0
                             0
                                       0
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                                                                      0
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##
   CSI055
                   0
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                                                                      0
                                                                                0
##
   CSI065
                                       0
                             0
                                                 0
                                                           0
                                                                      0
   CSI076
                   0
                                       0
                                                                                0
##
                     Otu07729
                               Otu07730 Otu07731 Otu07732 Otu07733
##
           Otu07728
                                                                            Otu07734
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 5.174912e-05
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
                   0
                             0
                                                 0
                                                           0
##
   CSI044
                                       0
                                                                      0 0.00000e+00
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
   CSI065
                   0
                             0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
                                       0
##
   CSI076
                   0
                             0
                                                 0
                                                           0
                                                                      0 0.00000e+00
##
           Otu07735 Otu07736
                                    Otu07737 Otu07738
                                                       Otu07739 Otu07740 Otu07741
## CSI001
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
                               0.000000e+00
                                                                                    0
  CSI012
                   0
                                                      0
                                                                0
                                                                          0
##
                             0
   CSI022
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
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                   0
  CSI044
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
                                                      0
                                                                0
                                                                                    0
##
   CSI055
                   0
                               4.302833e-05
                                                                          0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
   CSI065
                   Λ
                               0.000000e+00
                             0 0.000000e+00
                                                      0
                                                                0
##
   CSI076
##
               Otu07742 Otu07743
                                        Otu07744 Otu07745 Otu07746 Otu07747
   CSI001 0.000000e+00
                                 0 0.00000e+00
                                                          0
                                                                    0
                                                                               0
                                                          0
                                                                    0
                                                                               0
   CSI012 1.724971e-05
                                 0 1.724971e-05
                                 0 0.000000e+00
   CSI022 0.000000e+00
                                                          0
                                                                    0
                                                                               0
   CSI044 0.000000e+00
                                 0 0.00000e+00
                                                          0
                                                                    0
                                                                               0
   CSI055 0.000000e+00
                                 0 0.000000e+00
                                                          0
                                                                    0
                                                                               0
   CSI065 0.000000e+00
                                 0 0.00000e+00
                                                          0
                                                                    0
                                                                               0
##
   CSI076 0.000000e+00
                                 0 0.00000e+00
                                                          0
                                                                    0
                                                                               0
##
               Otu07748
                              Otu07749 Otu07750
                                                       Otu07751 Otu07752 Otu07753
```

```
## CSI001 0.000000e+00 0.000000e+00
                                              0 2.345326e-05
                                                                                0
  CSI012 6.899883e-05 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
                                              0 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
  CSI044 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                              0 6.454250e-05
                                                                      0
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
##
           0tu07754
                         Otu07755 Otu07756 Otu07757 Otu07758
                                                                    Otu07759
## CSI001
                  0 4.690652e-05
                                          0
                                                    0
                                                              0 0.000000e+00
  CSI012
                                          0
##
                  0 0.00000e+00
                                                    0
                                                              0 3.449941e-05
  CSI022
                  0 0.00000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
  CSI044
                                          0
                                                    0
##
                  0 0.00000e+00
                                                               0.000000e+00
##
   CSI055
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
                                                              0 0.00000e+00
##
   CSI065
                  0 0.000000e+00
                                          0
                                                    0
  CSI076
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
##
##
           Otu07760
                    Otu07761 Otu07762 Otu07763 Otu07764 Otu07765 Otu07766
## CSI001
                                                         0
                                                                   0
                  0
                            0
                                      0
                                               0
                                                                             0
##
  CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI022
                  0
                            0
                                                         0
                                                                   0
                                                                             0
##
                                      0
                                               0
##
  CSI044
                  0
                            0
                                      0
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                                                         0
                                                                   0
                                                                             0
##
  CSI055
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI065
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI076
                                               0
                                                         0
                                                                             0
                  0
                                      0
                                                                   0
               Otu07767
                             Otu07768 Otu07769 Otu07770 Otu07771
##
                                                                         0tu07772
  CSI001 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.000000e+00
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
   CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
                                              0
   CSI055 2.151417e-05 2.151417e-05
                                                        0
                                                                  0 0.00000e+00
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.000000e+00
##
   CSI076 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
##
           Otu07773 Otu07774 Otu07775 Otu07776
                                                      Otu07777 Otu07778
## CSI001
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
  CSI012
                            0
                                               0 0.000000e+00
                                                                       0
##
                  0
                                      0
   CSI022
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                            0
##
  CST044
                  0
                                      0
                                               0 0.00000e+00
                                                                       0
## CSI055
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
## CSI065
                  n
                            0
                                      Λ
                                               0 0.00000e+00
                                                                       0
  CSI076
                            0
                                      0
                                               0 0.000000e+00
##
                                                                       0
##
               Otu07779 Otu07780 Otu07781 Otu07782 Otu07783 Otu07784
  CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
  CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI022 0.000000e+00
                                0
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                                                    0
                                                              0
                                                                       0
                                0
                                                              0
   CSI044 0.000000e+00
                                          0
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                                                                       0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
##
               Otu07785 Otu07786 Otu07787 Otu07788
                                                      Otu07789
                                                                Otu07790
                                                                         Otu07791
  CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
   CSI012 6.899883e-05
                                0
                                          0
                                                    0
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                                                                       0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
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                                                                       0
                                                                                 0
## CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI055 0.000000e+00
                                0
                                          0
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                                                             0
                                                                       0
                                                                                 0
## CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
```

```
0 0
                                                0 0
## CSI076 0.000000e+00
                                                                     0
##
          Otu07792 Otu07793 Otu07794 Otu07795 Otu07796 Otu07797 Otu07798
                                             0 0.000000e+00
## CSI001
                          0
                                    0
                                                                     0
## CSI012
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
                                                                              0
## CSI022
                 0
                           0
                                    0
                                              0 2.151556e-05
                                                                     0
                                                                              0
## CSI044
                 0
                           0
                                    Ω
                                              0 0.000000e+00
                                                                     0
                                                                              Λ
## CSI055
                           0
                                             0 0.000000e+00
## CSI065
                           0
                                    0
                 0
                                             0 0.000000e+00
                                                                     0
## CSI076
                 0
                           0
                                    0
                                             0 0.000000e+00
                                                                     0
##
          Otu07799 Otu07800 Otu07801
                                          Otu07802 Otu07803 Otu07804 Otu07805
## CSI001
                 0
                           0
                                    0 2.345326e-05
                                                           0
                                    0 0.000000e+00
## CSI012
                 0
                           0
                                                           0
                                                                     0
                                                                              0
## CSI022
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                     0
                                                                              0
## CSI044
                 0
                           0
                                                           0
                                    0 0.000000e+00
                                                                              0
## CSI055
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                              0
## CSI065
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                     0
                 0
                           0
                                    0 0.000000e+00
                                                           0
## CSI076
          Otu07806 Otu07807 Otu07808 Otu07809 Otu07810 Otu07811
                                                                0 0.000000e+00
                 0
                                                       0
## CST001
                           0
                                    0
                                              0
## CSI012
                 0
                           0
                                    0
                                              0
                                                       0
                                                                0 0.00000e+00
## CSI022
                 Λ
                           0
                                    0
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                                                                0 0.00000e+00
## CSI044
                           0
                                                                0 0.00000e+00
## CSI055
                 0
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                                    0
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                                                       0
                                                                0.000000e+00
## CSI065
                 0
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                                                       0
                                                                0 0.00000e+00
                           0
                                    0
                                              0
                                                       0
## CSI076
                 Λ
                                                                0.000000e+00
          Otu07813 Otu07814 Otu07815 Otu07816 Otu07817 Otu07818 Otu07819
## CSI001
                 0
                           0
                                    0
                                              0
                                                       0
                                                                0
                                                                          0
## CSI012
                 0
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                                    0
                                              0
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                                                                          0
## CSI022
                           0
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                                    0
                                              0
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                                                                 0
                                                                          0
## CSI044
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                                    0
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## CSI055
                 0
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                                    0
                                              0
                                                       0
                                                                 0
## CSI065
                 0
                           0
                                    0
                                              0
                                                       0
                                              0
                                                       0
                 0
                           0
                                    0
          Otu07820 Otu07821 Otu07822 Otu07823 Otu07824 Otu07825 Otu07826
## CSI001
                 0
                           0
                                    0
                                              0
                                                       0
                                                                0
## CSI012
                 0
                           0
                                    0
                                              0
                                                       0
                                                                0
                                                                          0
## CSI022
                 0
                           0
                                                       0
                                                                          0
## CSI044
                 Λ
                           0
                                    0
                                              0
                                                       Λ
                                                                 0
                                                                          0
## CSI055
                 0
                           0
## CSI065
                 Ω
                           Λ
                                    0
                                              0
                           0
## CSI076
          0tu07827
                        Otu07828 Otu07829 Otu07830 Otu07831 Otu07832 Otu07833
## CSI001
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                     Ω
## CSI012
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
                 0 0.000000e+00
## CSI022
                                        0
                                                           0
                 0 0.00000e+00
                                                                              0
                                        0
## CSI044
                 0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI055
                 0 2.151417e-05
                                        0
                                                  0
                                                           0
                                                                     0
                                                  0
                                                           0
## CSI065
                 0 0.000000e+00
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
              Otu07834 Otu07835
                                    Otu07836 Otu07837 Otu07838 Otu07839
## CSI001 0.000000e+00
                              0 0.00000e+00
                                                     0
                                                              0
                                                                        0
                                                     0
                                                              0
                                                                        0
## CSI012 1.724971e-05
                               0 0.00000e+00
## CSI022 0.000000e+00
                             0 0.00000e+00
                                                     0
                                                              0
                                                                        0
## CSI044 0.000000e+00
                             0 0.00000e+00
                                                     0
                                                              0
                                                                        0
```

```
## CSI055 0.000000e+00
                                0 6.45425e-05
                                                       0
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                           0
                                                                 0
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
##
           Otu07840 Otu07841 Otu07842 Otu07843 Otu07844 Otu07845 Otu07846
## CST001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI022
                            0
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                  0
                                      0
                                                0
                                                         0
                                                                             0
## CSI044
                  0
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                                      0
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  CSI055
                  0
                            0
                                      0
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                                                         0
                                                                   0
  CSI065
                  0
                                                                             0
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                             0
          Otu07847 Otu07848
                                 Otu07849 Otu07850
                                                         Otu07851
                                                                       Otu07852
##
                                                   0 0.000000e+00 0.000000e+00
##
  CSI001
                  0
                            0 0.00000e+00
## CSI012
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI022
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI044
                  0
                            0 5.91471e-05
                                                   0 0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
  CSI055
                  0
                            0 0.00000e+00
##
  CSI065
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 2.890675e-05
##
   CST076
                  0
                            0 0.00000e+00
          Otu07853 Otu07854 Otu07855 Otu07856
                                                      Otu07857
                                                                    Otu07858
## CSI001
                  Ω
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
## CSI012
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                                                0 0.000000e+00 2.151556e-05
## CSI022
                  0
                            0
                                      0
                            0
                                                0 0.000000e+00 0.000000e+00
## CSI044
                  0
                                      0
## CSI055
                            0
                                      0
                  0
                                                0 0.000000e+00 0.000000e+00
  CSI065
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
   CSI076
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
##
          Otu07859 Otu07860 Otu07861
                                            Otu07862 Otu07863
                                                                    Otu07864
## CSI001
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.000000e+00
## CSI012
                  0
                            0
                                      0 1.724971e-05
                                                              0 0.00000e+00
## CSI022
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.00000e+00
##
  CSI044
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.000000e+00
##
  CSI055
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
  CSI065
                            0
                                                              0 0.000000e+00
##
                  0
                                      0 0.000000e+00
                  0
                            0
                                      0 0.00000e+00
                                                              0 2.890675e-05
   CSI076
                                            Otu07868 Otu07869 Otu07870 Otu07871
          Otu07865 Otu07866 Otu07867
##
## CSI001
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
## CSI012
                  0
                            0
                                      0 6.899883e-05
                                                              Λ
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
                  0
                            Λ
                                                              Λ
                                                                       0
                                                                                 O
## CSI044
                                      0 0.00000e+00
                  0
                            0
                                                              0
  CSI055
                                      0 0.00000e+00
## CSI065
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
   CST076
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
          Otu07872 Otu07873 Otu07874 Otu07875 Otu07876 Otu07877
##
                                                                     Otu07878
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                                0
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                                                                             0
## CSI022
                  0
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                                                                   0
                                                                             0
                            0
                                                0
## CSI044
                  0
                                      0
                                                         0
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## CSI055
                  0
                            0
                                      0
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                                                         0
                                                                   0
                                                                             0
##
  CSI065
                  0
                            0
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                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                                         0
                                                                   0
                                                                             0
##
                                      0
                                                0
##
          Otu07879 Otu07880 Otu07881
                                            Otu07882 Otu07883 Otu07884 Otu07885
## CSI001
                                      0 2.345326e-05
                  0
                            0
                                                              0
                                                                       0
                                                                                 0
## CSI012
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
```

```
## CSI022
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                    0
## CSI044
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                                    0
                                                                         0
                                       0 0.000000e+00
## CSI055
                   0
                             0
                                                               0
                                                                         0
                                                                                    0
                                                                                    0
  CSI065
                   0
                             0
                                         0.000000e+00
                                                               0
                                                                         0
##
##
   CST076
                   0
                             0
                                         0.000000e+00
                                                               0
                                                                         0
                                                                                    0
           Otu07886 Otu07887 Otu07888
                                             Otu07889 Otu07890 Otu07891 Otu07892
##
## CSI001
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                    0
## CSI012
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                    0
##
   CSI022
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                                                                                    0
                             0
                                                               0
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##
  CSI044
                   0
                                       0 0.000000e+00
                                                                         Λ
   CSI055
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                                    0
   CSI065
                   0
                             0
                                                               0
                                                                         0
                                                                                   0
##
                                       0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0 5.781349e-05
                                                               0
                                                                         0
                                                                                    0
           Otu07893 Otu07894 Otu07895 Otu07896 Otu07897 Otu07898 Otu07899
##
## CSI001
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                       0
                                                                               0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
                                                           0
                                                                     0
                                                                               0
##
   CSI022
                   0
                                       0
                                                 0
##
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI055
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                                       0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu07900
                     Otu07901
                               Otu07902 Otu07903 Otu07904 Otu07905
##
## CSI001
                                                           0
                                                                     0
                   0
                             0
                                       0
                                                 0
                                                                               0
   CSI012
                             0
                                                 0
                                                           0
                                                                     0
##
                   0
                                       0
                                                                               0
## CSI022
                   0
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                                                 0
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                                                                               0
   CSI044
                   0
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                                       0
                                                 0
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                                                                               0
   CSI055
                   0
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                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI065
                   0
                                       0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI076
                                       0
##
                   0
##
               Otu07907 Otu07908 Otu07909 Otu07910 Otu07911 Otu07912 Otu07913
##
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                    0
                                                                         0
   CSI055 2.151417e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                    0
##
                                                                         0
##
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0
                                                                          0
                                                                                    0
##
           0 \pm 1107914
                         0tu07915
                                        Otu07916 Otu07917
                                                                 Otu07918 Otu07919
## CSI001
                   0 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
   CSI012
                   0 1.724971e-05 3.449941e-05
                                                          0 0.00000e+00
##
                                                                                   0
   CSI022
                   0 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
                                                                                   0
  CSI044
                   0 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
                                                                                  0
##
                   0 0.000000e+00 0.000000e+00
##
   CSI055
                                                          0 0.00000e+00
                                                                                  0
##
   CSI065
                   0 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
                                                                                  0
                   0 0.000000e+00 0.000000e+00
##
   CSI076
                                                          0 0.00000e+00
           Otu07920 Otu07921 Otu07922 Otu07923
                                                       Otu07924
                                                                      0tu07925
##
## CSI001
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
   CSI012
##
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
   CSI022
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
   CSI044
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
   CSI055
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
## CSI065
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
## CSI076
                   0
                             0
                                       0
                                                 0 0.000000e+00 2.890675e-05
##
           Otu07926 Otu07927 Otu07928 Otu07929 Otu07930
                                                                 Otu07931 Otu07932
```

```
## CSI001
                  0
                            0
                                                          0 2.345326e-05
                                                                                   0
## CSI012
                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                   0
                                      0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
                                                                                  0
  CSI044
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
##
##
  CSI055
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
##
  CSI065
                  \cap
                            0
                                                          0 0.000000e+00
##
   CSI076
                   0
                                      0
##
           Otu07933 Otu07934
                                   Otu07935
                                                 Otu07936 Otu07937 Otu07938
## CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
## CSI012
                  0
## CSI022
                  0
                            0 6.454667e-05 0.000000e+00
                                                                   0
                                                                             0
                                                                   0
## CSI044
                  0
                              0.000000e+00 0.000000e+00
                                                                             0
##
   CSI055
                  0
                            0 0.000000e+00 2.151417e-05
                                                                   0
                                                                             0
                            0 0.000000e+00 0.000000e+00
                                                                   0
##
  CSI065
                  0
                                                                             0
##
   CSI076
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
##
           Otu07939 Otu07940 Otu07941 Otu07942 Otu07943 Otu07944
                                                                           Otu07945
## CSI001
                                                          0
                  0
                            0
                                      0
                                                0
                                                                    0 0.00000e+00
##
  CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 1.724971e-05
                                                                    0 0.000000e+00
## CSI022
                  0
                            0
                                                0
                                                          0
                                      0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
  CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
## CSI065
                   0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
## CSI076
           Otu07946 Otu07947
                              Otu07948 Otu07949 Otu07950 Otu07951
##
                                                                      0tu07952
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                0
                                                          0
                                                                    0
##
   CSI044
                  0
                                      0
                                                                              0
                            0
                                                0
   CSI055
                  0
                                      0
                                                          0
                                                                    0
                                                                              0
##
##
  CSI065
                   0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
  CSI076
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
               Otu07953 Otu07954
                                       Otu07955 Otu07956
                                                                Otu07957 Otu07958
   CSI001 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI012 1.724971e-05
                                 0 0.000000e+00
                                                         0 1.724971e-05
                                                                                 0
   CSI022 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI044 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.000000e+00
                                                                                 0
   CSI055 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.000000e+00
                                                                                 0
## CSI065 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.000000e+00
                                                                                 0
   CSI076 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.000000e+00
                                                                                 0
##
           Otu07959 Otu07960
                                   Otu07961 Otu07962 Otu07963 Otu07964
                            0 0.000000e+00
                                                    0
## CSI001
                                                              0
## CSI012
                  0
                            0 0.00000e+00
                                                     0
                                                              0
                                                                        0
## CSI022
                  0
                            0 2.151556e-05
                                                     0
                                                               0
                                                                        0
                  0
                                                     0
                                                               0
##
  CSI044
                            0 0.000000e+00
                                                                        0
## CSI055
                                                               0
                  0
                            0 0.00000e+00
                                                     0
                                                                        0
## CSI065
                            0 0.000000e+00
                                                     0
                                                               0
                                                                        0
                  0
##
   CSI076
                            0 0.00000e+00
                                                     0
                                                               0
                                                                        0
               Otu07965 Otu07966 Otu07967 Otu07968
                                                       Otu07969
##
                                                                Otu07970
                                                                          Otu07971
## CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
                                                                                   0
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
## CSI044 0.000000e+00
                                 0
                                           0
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                                                               0
                                                                        0
                                                                                   0
## CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
## CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
```

```
## CSI076 0.000000e+00
                                                            0
                                                                     0
##
              Otu07972 Otu07973
                                      Ot:1107974
                                                   Otu07975 Otu07976 Otu07977
## CSI001 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
## CSI012 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
## CSI022 0.000000e+00
                               0 0.000000e+00 8.606222e-05
                                                                     0
## CSI044 0.000000e+00
                               0 0.000000e+00 1.971570e-05
                                                                     0
                                                                              0
## CSI055 4.302833e-05
                               0 2.151417e-05 0.000000e+00
## CSI065 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
## CSI076 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     Ω
          Otu07978 Otu07979 Otu07980
                                           Otu07981 Otu07982 Otu07983 Otu07984
##
## CSI001
                 0
                           0
                                     0 2.345326e-05
                                                            0
                                                                      0
## CSI012
                           0
                                                            0
                                                                      0
                                                                               0
                  0
                                     0 0.00000e+00
## CSI022
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                               0
                           0
                                                            0
## CSI044
                  0
                                     0 0.000000e+00
                                                                               0
## CSI055
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                               0
## CSI065
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                               0
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
## CSI076
          Otu07985 Otu07986 Otu07987 Otu07988 Otu07989 Otu07990 Otu07991
## CST001
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI022
                  Ω
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI044
## CSI055
                           0
                                                        0
                  0
                                     0
                                              0
                                                                  0
                                                                           0
## CSI065
                           0
                  0
                                     0
                                                        0
## CSI076
                  0
                           0
                                     0
                                              0
          Otu07992
                        Otu07993 Otu07994 Otu07995 Otu07996 Otu07997 Otu07998
## CSI001
                 0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                      0
## CSI012
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI022
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI044
                 0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                               0
## CSI055
                 0 4.302833e-05
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
## CSI065
                 0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                               0
                                         0
                  0 0.000000e+00
                                                  0
                                                            0
          Otu07999 Otu08000 Otu08001 Otu08002 Otu08003 Otu08004
                                                                        Otu08005
##
## CSI001
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI012
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI022
                  0
                           0
                                                        0
                                                                  0 0.00000e+00
## CSI044
                  Ω
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.00000e+00
## CSI055
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 4.302833e-05
                  Ω
                           0
                                     0
                                              0
                                                        0
## CSI065
                                                                 0.000000e+00
                           0
                                     0
                                              0
                                                        0
  CSI076
                  0
                                                                 0 0.00000e+00
##
             Otu08006 Otu08007 Otu08008 Otu08009 Otu08010
                                                                 Otu08011
## CSI001 0.00000e+00
                              0
                                        0
                                                 0
                                                           0 0.000000000
                              0
                                                  0
## CSI012 0.00000e+00
                                        0
                                                           0 0.000000000
## CSI022 0.00000e+00
                              0
                                        0
                                                  0
                                                           0 0.0001075778
## CSI044 1.97157e-05
                              0
                                        0
                                                 0
                                                           0 0.000000000
   CSI055 0.00000e+00
                              0
                                        0
                                                 0
                                                           0 0.000000000
                              0
                                        0
                                                  0
   CSI065 0.00000e+00
                                                           0 0.000000000
   CST076 0.00000e+00
                              0
                                        0
                                                 0
                                                           0 0.000000000
          Otu08012 Otu08013 Otu08014 Otu08015 Otu08016 Otu08017 Otu08018
## CSI001
                 0
                           0
                                     0
                                              0
                                                        0
                                                                           0
                                                                 0
                           0
                                                        0
                                                                 0
## CSI012
                  0
                                     0
                                              0
                                                                           0
## CSI022
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI044
                 0
                           0
                                     0
                                              0
                                                        0
                                                                           0
```

```
## CSI055
                   0
                             0
                                                                               0
## CSI065
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu08019 Otu08020 Otu08021 Otu08022 Otu08023
                                                                 Otu08024
##
  CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
  CSI012
                             0
                                       0
                                                 0
##
                   0
                                                           0 1.724971e-05
## CSI022
                             0
                   0
                                       0
                                                 0
                                                           0 0.00000e+00
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                             0
                                       0
                                                 0
##
   CSI065
                   \cap
                                                           0 0.000000e+00
   CSI076
                   0
                             0
                                       0
                                                           0 0.00000e+00
##
               Otu08025 Otu08026 Otu08027
                                                  Otu08028
                                                                 Otu08029 Otu08030
##
   CSI001 0.000000e+00
                                 0
                                           0 0.000000e+00 0.0000000000
                                                                                  0
   CSI012 0.000000e+00
                                 0
                                           0 0.000000e+00 0.0000000000
                                                                                  0
   CSI022 0.000000e+00
                                 0
                                           0 0.000000e+00 0.0000000000
                                                                                  0
   CSI044 0.000000e+00
                                 0
                                           0 0.000000e+00 0.0000000000
   CSI055 0.000000e+00
                                 0
                                           0 0.000000e+00 0.0000000000
                                                                                  0
   CSI065 0.000000e+00
                                           0 0.000000e+00 0.0001134602
                                 0
                                           0 0.000000e+00 0.0000000000
##
   CST076 0.000000e+00
##
           Otu08031 Otu08032 Otu08033 Otu08034 Otu08035 Otu08036 Otu08037
## CSI001
                   Ω
                             Λ
                                       0
                                                 0
                                                           Λ
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                                     0
                                                                               0
                                                           0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                                     0
                                                                               0
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                    Otu08039
                               Otu08040 Otu08041 Otu08042 Otu08043
##
           Otu08038
                                                                       Otu08044
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI001
  CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI065
                             0
                                                           0
                                                                     0
                                                                               0
##
                   0
                                       0
                                                 0
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu08045 Otu08046 Otu08047
                                             Otu08048 Otu08049 Otu08050 Otu08051
##
## CSI001
                   0
                             0
                                       0 0.000000000
                                                               0
                                                                         0
                                                                                    0
## CSI012
                   0
                             0
                                       0 0.000000000
                                                               0
                                                                         0
                                                                                    0
## CSI022
                   0
                             0
                                       0 0.0001075778
                                                               0
                                                                         0
                                                                                    0
                   0
                             Λ
                                                               0
                                                                         0
                                                                                    O
## CSI044
                                       0 0.000000000
   CSI055
                   0
                             0
                                       0 0.000000000
                                                               0
                                                                                    0
  CSI065
                   0
                             0
                                       0 0.000000000
                                                               0
                                                                         0
                                                                                    0
##
                                       0 0.000000000
                                                               0
##
   CSI076
                   0
                             0
                                                                         0
                                                                                    0
                         Otu08053 Otu08054 Otu08055 Otu08056
                                                                 Otu08057
##
           Otu08052
                                                                            Otu08058
                                                     0
## CSI001
                   0 0.00000e+00
                                           0
                                                               0
                                                                         0
                                                                                    0
## CSI012
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI022
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
                                           0
                                                                                    0
   CSI044
                   0 0.000000e+00
                                                     0
                                                               0
                                                                         0
##
   CSI055
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI065
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
                   0
##
           Otu08059
                         Otu08060
                                        Otu08061 Otu08062 Otu08063 Otu08064
## CSI001
                   0 0.000000e+00 4.690652e-05
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0 1.724971e-05 0.000000e+00
                                                          0
                                                                    0
                                                                              0
```

```
## CSI022
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
##
   CST044
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
##
   CSI055
                   0 0.000000e+00 2.151417e-05
                                                          0
                                                                    0
                                                                              0
                                                                    0
   CSI065
                     0.000000e+00 0.000000e+00
                                                          0
                                                                              0
##
##
   CST076
                     0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
                    Otu08066 Otu08067 Otu08068 Otu08069 Otu08070
##
           Otu08065
                                                                       Otu08071
##
  CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                                                                     0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI044
                   0
                                       0
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI065
                   0
                             0
                                       0
##
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                         Otu08073 Otu08074 Otu08075
                                                       Otu08076 Otu08077
                                                                            Otu08078
##
           Otu08072
##
  CSI001
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI012
                    8.624853e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI022
                    0.000000e+00
   CSI044
                     0.000000e+00
                                           0
                                                     0
                                                                0
                                                                          0
                                                                                    0
   CSI055
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
                    0.000000e+00
##
   CSI065
                     0.00000e+00
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
##
   CST076
                   Λ
                     0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
           Otu08079
                         Otu08080 Otu08081 Otu08082
                                                       Otu08083
                                                                      Otu08084
## CSI001
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI012
                    0.000000e+00
                                           0
                                                     0
                                                                  1.724971e-05
##
##
   CSI022
                   0
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                 0.00000e+00
   CSI044
                   0 0.000000e+00
                                           0
                                                     0
                                                                 0.000000e+00
   CSI055
                     2.151417e-05
                                           0
                                                     0
                                                                  0.000000e+00
##
                   0
                                           0
                                                     0
                                                                  0.000000e+00
##
   CSI065
                    0.000000e+00
                                                               0
   CSI076
                                                     0
                     0.000000e+00
                                           0
                                                               0
                                                                 0.000000e+00
##
##
           Otu08085
                         Otu08086 Otu08087 Otu08088
                                                       Otu08089
                                                                  Otu08090 Otu08091
##
   CSI001
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI012
                   0 5.174912e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI022
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                          0
                                                                                    0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI044
                   0 0.000000e+00
   CSI055
                     0.000000e+00
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
##
   CSI065
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
##
   CSI076
                    2.890675e-05
                                           0
                                                     0
                                                                0
                                                                          0
                                                                                    0
##
           Otu08092 Otu08093 Otu08094 Otu08095 Otu08096
                                                                  Otu08097 Otu08098
   CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 4.690652e-05
                                                                                    0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                                                    O
##
                                                           0 0.00000e+00
   CSI022
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
                   0
                                       0
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
                             0
##
   CSI055
                   0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
                   0
                             0
                                                 0
                                                                                    0
##
   CSI065
                                       0
                                                           0 0.00000e+00
                   0
                             0
                                                 0
                                                                                    0
##
   CSI076
                                       0
                                                           0 0.00000e+00
           Otu08099
                     Otu08100
                                   Otu08101 Otu08102
                                                            Otu08103
                                                                           Otu08104
##
##
   CSI001
                   0
                             0 0.000000e+00
                                                     0 0.000000e+00 0.000000e+00
   CSI012
##
                   0
                             0
                               0.000000e+00
                                                     0 0.000000e+00 0.000000e+00
                               0.000000e+00
##
   CSI022
                   0
                             0
                                                       0.000000e+00 0.000000e+00
##
   CSI044
                   0
                               0.000000e+00
                                                       0.000000e+00 0.000000e+00
                               0.00000e+00
   CSI055
                   0
                                                       0.000000e+00 0.000000e+00
##
                             0
##
   CSI065
                   0
                             0 0.00000e+00
                                                       0.000000e+00 0.000000e+00
##
  CSI076
                   0
                             0 8.672024e-05
                                                     0
                                                       0.000000e+00 2.890675e-05
##
           Otu08105
                         Otu08106 Otu08107 Otu08108
                                                            Otu08109 Otu08110
```

```
## CSI001
                  0 0.00000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
  CST012
                  0 0.000000e+00
                                          0
                                                    0 1.724971e-05
                                                                            0
                  0 0.000000e+00
                                                    0 0.00000e+00
  CSI022
                                          0
                                                                            0
  CSI044
                  0 0.000000e+00
                                          0
                                                     0.000000e+00
                                                                            0
##
                                                    \cap
##
   CSI055
                    0.000000e+00
                                          0
                                                      0.000000e+00
                                                                            0
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00
                                                                            0
##
   CSI065
                                          0
##
   CSI076
                  0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
##
          Otu08111
                    Otu08112 Otu08113 Otu08114 Otu08115 Otu08116 Otu08117
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
  CSI012
                  0
  CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
                                                0
                                                                   0
##
   CSI065
                  0
                                      0
                                                         0
                                                                             0
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
##
           Otu08118
                    Otu08119
                              Otu08120
                                        Otu08121
                                                      Otu08122
                                                                    Otu08123
  CSI001
                            0
##
                  0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
  CSI012
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
  CSI022
                  0
                            0
                                                0 2.151556e-05 0.000000e+00
##
                                      0
##
  CSI044
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
  CSI055
                  Λ
                            0
                                      0
                                                0 0.000000e+00 2.151417e-05
   CSI065
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
  CSI076
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
                    Otu08125
                              Otu08126 Otu08127
                                                  Otu08128 Otu08129
##
           Otu08124
                                                                          Otu08130
## CSI001
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 4.690652e-05
  CSI012
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.000000e+00
## CSI022
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
                  0
                            0
                                                0
                                                         0
##
   CSI044
                                      0
                                                                   0 0.00000e+00
                            0
                                                0
                                                         0
   CSI055
                  0
                                      0
                                                                   0 0.000000e+00
##
##
  CSI065
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
               Otu08131 Otu08132 Otu08133 Otu08134
                                                          Otu08135
                                                                         Otu08136
   CSI001 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00
                                0
                                          0
                                                    0 1.724971e-05 0.000000e+00
   CSI022 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 2.151556e-05
   CSI044 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
                                                     0.000000e+00 0.000000e+00
  CSI065 0.000000e+00
                                0
                                          0
##
   CSI076 8.672024e-05
                                0
                                                    0 0.000000e+00 0.000000e+00
##
                                           Otu08139 Otu08140 Otu08141 Otu08142
##
                             Otu08138
               Ot:1108137
   CSI001 0.000000e+00 0.000000e+00 2.345326e-05
                                                                       0
   CSI012 1.724971e-05 0.000000e+00 0.000000e+00
                                                             0
                                                                       0
                                                                                0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                             0
                                                                       0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
                                                             0
                                                                                0
   CSI055 0.000000e+00 0.000000e+00 2.151417e-05
                                                                       0
                                                                                0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                             0
                                                                       0
                                                                                0
##
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                             0
                                                                       0
                                                                                0
##
                             Otu08144 Otu08145 Otu08146 Otu08147 Otu08148
               Otu08143
  CSI001 2.345326e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI012 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                            0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
                                                                  0
## CSI044 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                            0
## CSI055 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
## CSI065 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
```

```
## CSI076 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
##
           Otu08149 Otu08150 Otu08151 Otu08152 Otu08153 Otu08154 Otu08155
## CSI001
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI044
                                      0
                            0
                                                0
                                                          0
## CSI055
                  0
                                      0
                                                                    0
                                                                              0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
               Otu08156 Otu08157 Otu08158 Otu08159 Otu08160 Otu08161 Otu08162
##
  CSI001 0.0000000000
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI012 0.0000000000
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
   CSI022 0.0000000000
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
   CSI044 0.0000000000
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI055 0.0000000000
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI065 0.0000000000
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI076 0.0000000000
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
           Otu08163
                         Otu08164
                                       Otu08165 Otu08166 Otu08167 Otu08168
                  0 0.000000000 0.000000e+00
## CST001
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0 0.0000000000 1.724971e-05
                                                         0
                                                                   0
                                                                             0
##
  CSI022
                  0 0.000000000 0.000000e+00
                                                         Λ
                                                                   0
                                                                             0
## CSI044
                  0 0.000000000 0.000000e+00
                                                         0
                                                                   0
                                                                             0
## CSI055
                  0 0.0000000000 2.151417e-05
                                                                   0
                                                         Ω
                                                                             0
                  0 0.000000000 0.000000e+00
                                                                   0
  CSI065
                                                         0
                                                                   0
##
   CSI076
                  0 0.000000000 0.000000e+00
                                                         Ω
                                                                             0
           Otu08169 Otu08170
                                   Otu08171 Otu08172 Otu08173 Otu08174 Otu08175
## CSI001
                  0
                            0 2.345326e-05
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI012
                  0
                            0 0.00000e+00
## CSI022
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI044
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI055
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI065
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI076
                  0
                            0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
           Otu08176 Otu08177
                                   Otu08178 Otu08179 Otu08180
##
                                                                Otu08181
## CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                            0 0.000000e+00
## CSI012
                  0
                                                    0
                                                              0
                                                                        0
## CSI022
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
## CSI044
                  Ω
                            0 0.000000e+00
                                                    0
                                                              Λ
                                                                        0
  CSI055
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                    0
                                                              Λ
## CSI065
                            0.000000e+00
                                                                        0
                            0 0.000000e+00
                                                    0
                                                              0
   CSI076
##
               Otu08182 Otu08183 Otu08184 Otu08185 Otu08186
                                                                Otu08187 Otu08188
   CSI001 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI012 0.000000e+00
                                           0
                                                              0
   CSI022 0.000000e+00
                                 0
                                           0
                                                    0
                                                                        0
                                                                                  0
  CSI044 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI055 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                        0
                                                                                  0
   CSI065 0.000000e+00
                                           0
                                                    0
                                                              0
   CSI076 0.000000e+00
                                 0
                                           0
                                                              0
                                                                        0
                                                                                  0
##
               Otu08189 Otu08190
                                       Otu08191
                                                      Otu08192 Otu08193 Otu08194
## CSI001 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
## CSI012 0.000000e+00
                                 0 0.000000e+00 3.449941e-05
                                                                       0
                                                                                 0
## CSI022 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
## CSI044 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
```

```
## CSI055 0.000000e+00
                               0 0.000000e+00 0.000000e+00
  CSI065 0.000000e+00
                              0 3.782005e-05 0.000000e+00
                                                                    0
   CSI076 2.890675e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
##
          Otu08195
                       Otu08196 Otu08197
                                             Otu08198 Otu08199 Otu08200
## CST001
                 0 0.000000e+00
                                        0 0.00000e+00
                                                              0
## CSI012
                 0 0.000000e+00
                                                              0
                                        0 0.00000e+00
                                                                        0
## CSI022
                 0 0.00000e+00
                                        0 0.00000e+00
                                                               0
                                                                        0
## CSI044
                 0 0.00000e+00
                                        0 0.00000e+00
                                                              0
                                                                        0
  CSI055
                 0 0.000000e+00
                                        0 0.00000e+00
                                                               0
                                        0 7.56401e-05
                                                              0
  CSI065
                 0 0.000000e+00
   CSI076
                 0 0.000000e+00
                                        0 0.00000e+00
          Otu08201 Otu08202 Otu08203 Otu08204
                                                    Otu08205 Otu08206 Otu08207
##
## CSI001
                 0
                           0
                                    0
                                             0 0.000000e+00
                                                                     0
                                                                              0
## CSI012
                           0
                                    0
                 0
                                              0 0.00000e+00
                                                                     0
                                                                              0
## CSI022
                                                                              0
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
## CSI044
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                              0
                 0
                           0
                                    0
                                                                     0
## CSI055
                                              0 8.605667e-05
                                                                              0
## CSI065
                 0
                           0
                                    0
                                              0 0.00000e+00
##
  CST076
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
                                                                              0
          Otu08208 Otu08209 Otu08210 Otu08211
                                                    Otu08212 Otu08213 Otu08214
## CSI001
                 Λ
                           Λ
                                    Ω
                                             0 0.000000e+00
                                                                     0
                                                                              Λ
## CSI012
                           0
                                    0
                                              0 0.000000e+00
                                                                              0
## CSI022
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                                                                              0
                           0
                                    0
## CSI044
                 0
                                              0 0.00000e+00
                                                                     0
                                                                              0
                           0
                                    Ω
                                                                     0
                                                                              Λ
## CST055
                 0
                                              0 0.00000e+00
  CSI065
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                              0
  CSI076
                 0
                           0
                                    0
                                                                     0
                                                                              0
##
                                              0 0.000000e+00
                                Otu08217 Otu08218 Otu08219
          Otu08215 Otu08216
                                                                 Otu08220
## CSI001
                 0
                           0 0.000000e+00
                                                 0
                                                           0 0.000000e+00
## CSI012
                 0
                           0 1.724971e-05
                                                  0
                                                           0 0.00000e+00
## CSI022
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.000000e+00
## CST044
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.000000e+00
                                                  0
## CSI055
                 0
                           0 0.00000e+00
                                                           0 0.00000e+00
                                                  0
## CSI065
                 0
                           0 0.000000e+00
                                                           0 0.00000e+00
                 0
                           0 0.00000e+00
                                                  0
                                                           0 0.00000e+00
##
                                 Otu08223 Otu08224 Otu08225 Otu08226 Otu08227
          Otu08221 Otu08222
##
## CSI001
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI012
                 Λ
                           0 0.000000e+00
                                                  0
                                                           Λ
                                                                     0
                                                                              0
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                              0
## CSI022
                                                                     0
                 Λ
                                                  Ω
                                                           Λ
                                                                     0
                                                                              Λ
## CST044
                           0 0.00000e+00
                 0
                                                  0
                                                           0
  CSI055
                           0 0.00000e+00
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI065
                 0
                           0.000000e+00
##
   CST076
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     Ω
              Otu08228 Otu08229 Otu08230 Otu08231 Otu08232
##
                                                                 Otu08233
  CSI001 7.035977e-05
                               0
                                        0
                                                  0
                                                           0 0.00000e+00
## CSI012 0.000000e+00
                                                  0
                               0
                                        0
                                                           0 1.724971e-05
  CSI022 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 0.00000e+00
                                        0
                                                  0
## CSI044 0.000000e+00
                               0
                                                           0 0.00000e+00
  CSI055 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 0.000000e+00
## CSI065 0.000000e+00
                               0
                                        0
                                                  0
                                                           0 0.00000e+00
                               0
                                        0
                                                  0
  CSI076 0.000000e+00
                                                           0 0.00000e+00
          Otu08234 Otu08235 Otu08236 Otu08237 Otu08238 Otu08239 Otu08240
## CSI001
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI012
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
```

```
## CSI022
                                                                               0
  CST044
                   0
                             0
                                                           0
                                       0
                                                 0
                                                                     0
                                                                               0
  CSI055
                   0
                             0
                                                           0
                                                                               0
  CSI065
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CSI076
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                              Otu08242 Otu08243 Otu08244 Otu08245 Otu08246
               Otu08241
   CSI001 0.000000e+00 9.381303e-05
                                                0
                                                          0
                                                                    0
## CSI012 0.000000e+00 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI022 0.000000e+00 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                              0
                                                0
                                                                    0
   CSI044 0.000000e+00 0.000000e+00
                                                          0
                                                                              0
   CSI055 2.151417e-05 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI065 0.000000e+00 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI076 0.000000e+00 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                              0
           Otu08247 Otu08248 Otu08249 Otu08250 Otu08251
##
                                                                  Otu08252 Otu08253
## CSI001
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                   0
                                                                                    0
##
  CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 3.449941e-05
                                                                                    0
  CSI022
                   0
                                                                                    0
##
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
  CSI055
                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
                                       0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    O
##
           Otu08254
                    Otu08255
                               Otu08256 Otu08257
                                                   Otu08258 Otu08259 Otu08260
## CSI001
                                                                     0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
  CSI012
                             0
                                                           0
                                                                     0
                   0
                                       0
                                                 0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                             0
                                                                     0
##
   CSI065
                   0
                                       0
                                                 0
                                                           0
                                                                               0
   CSI076
                   0
                             0
                                       0
                                                 0
                                                                     0
                                                                               0
##
           Otu08261 Otu08262 Otu08263
##
                                              0tu08264
                                                            Otu08265 Otu08266
## CSI001
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
##
   CSI012
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
   CSI022
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
##
  CSI044
  CSI055
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
##
   CSI065
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
##
                                                                              0
##
   CSI076
                   0
                             0
                                       0 0.000000e+00 5.781349e-05
##
           Otu08267
                         Otu08268
                                        Otu08269 Otu08270 Otu08271 Otu08272
## CSI001
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
  CSI012
                   0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
##
                                                          Ω
   CSI022
                   0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                                                          0
## CSI044
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
                   0 0.000000e+00 0.000000e+00
                                                                    0
   CSI055
                                                          0
                                                                              0
                   0 0.000000e+00 0.000000e+00
                                                                    Λ
##
   CSI065
                                                          Λ
                                                                              Λ
                   0 0.000000e+00 5.781349e-05
                                                          0
                                                                    0
##
   CSI076
           Otu08273 Otu08274 Otu08275 Otu08276 Otu08277 Otu08278
                                                                       Otu08279
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI012
                                                                     0
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
  CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu08280 Otu08281 Otu08282 Otu08283
                                                       Otu08284 Otu08285 Otu08286
```

```
## CSI001
                                                0 0.00000e+00
                                                                         0
                                                                                   0
## CSI012
                  0
                             0
                                                0 1.724971e-05
                                                                         0
                                                                                   0
                                      0
## CSI022
                  0
                             0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
                                                                                   0
## CSI044
                  0
                             0
                                      0
                                                0 0.00000e+00
                                                                         0
## CSI055
                  0
                             0
                                       0
                                                0 0.000000e+00
                                                                         0
                                                                                   0
## CSI065
                             0
                                       0
                                                0 0.000000e+00
                                                                         0
                                                                                   0
                  \cap
                             0
                                                0 0.00000e+00
   CSI076
                  0
                                   Otu08289 Otu08290
##
           Otu08287 Otu08288
                                                           Otu08291 Otu08292
## CSI001
                  0
                             0 0.000000e+00
                                                     0 0.00000e+00
                                                                             0
## CSI012
                                                                             0
                  0
                             0 0.000000e+00
                                                     0 0.00000e+00
## CSI022
                  0
                             0 0.00000e+00
                                                     0 0.000000e+00
                                                                             0
## CSI044
                  0
                                                     0 0.000000e+00
                                                                             0
                             0 0.000000e+00
##
   CSI055
                  0
                             0 2.151417e-05
                                                     0 2.151417e-05
                                                                             0
##
   CSI065
                             0 0.000000e+00
                                                     0 0.00000e+00
##
   CSI076
                  0
                             0 2.890675e-05
                                                     0 0.000000e+00
                                                                             0
##
               Otu08293 Otu08294 Otu08295 Otu08296 Otu08297
                                                                      Otu08298
   CSI001 0.0000000000
                                 0
                                           0
                                                     0
                                                               0 7.035977e-05
   CSI012 0.0000000000
                                           0
                                                     0
                                                               0 1.724971e-05
   CSI022 0.0000000000
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
## CSI044 0.0000000000
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI055 0.0000000000
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
## CSI065 0.0000000000
                                           0
                                                               0 0.000000e+00
## CSI076 0.0000000000
                                 0
                                           0
                                                               0 0.000000e+00
           Otu08299 Otu08300 Otu08301 Otu08302
                                                       Otu08303 Otu08304 Otu08305
## CSI001
                  0
                             0
                                      0
                                                0 0.00000e+00
                                                                         0
## CSI012
                  0
                             0
                                      0
                                                0 1.724971e-05
                                                                         0
                                                                                   0
## CSI022
                  0
                             0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
## CSI044
                             0
                                                0 0.000000e+00
                                                                                   0
                  0
                                      0
                             0
                                                                                   0
## CSI055
                  0
                                       0
                                                0 2.151417e-05
                                                                         0
## CSI065
                  0
                             0
                                       0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
## CSI076
                  0
                             0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
##
           Otu08306 Otu08307 Otu08308 Otu08309 Otu08310 Otu08311 Otu08312
## CSI001
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI012
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI022
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI044
                  0
                             0
                                                0
                                                          0
                                                                     0
                                                                              0
                                      0
## CSI055
                   0
                             0
                                                                     0
                                                                              0
## CSI065
                  0
                             0
                                       Λ
                                                0
                                                          0
                                                                     0
                                                                              0
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
##
  CSI076
##
           Otu08313 Otu08314 Otu08315 Otu08316 Otu08317 Otu08318 Otu08319
                             0
## CSI001
                  0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI012
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI022
                                                0
                                                                     0
                  0
                             0
                                       0
                                                          0
                                                                              0
                  0
                             0
                                                0
                                                          0
                                                                     0
                                                                              0
## CSI044
                                       0
## CSI055
                  0
                             0
                                                0
                                                          0
                                                                     0
                                                                              0
                                       0
## CSI065
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
                                                0
                                                          0
##
  CSI076
                  0
                                       0
                                                                     0
                                                                              0
                         Otu08321 Otu08322 Otu08323 Otu08324 Otu08325 Otu08326
##
           Otu08320
## CSI001
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI012
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
  CSI022
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
## CSI044
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI055
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI065
                  0 3.782005e-05
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
```

##	CSI076	0	0.0000006	e+00	0		0		0		0		0
##		Otu08327	Otu08328	Otu08329	Otu(	08330	Otu	08331	Otu	8332	OtuO	8333	
##	CSI001	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
##	CSI076	0	0	0		0		0		0		0	
##		Otu08334	Otu08335	Otu08	3336	Otu08	3337	Otu08	3338	Otu08	3339	Otu083	340
##	CSI001	0	0	0.0000006	e+00		0		0		0		0
##	CSI012	0	0	0.0000006	e+00		0		0		0		0
##	CSI022	0	0	0.0000006	e+00		0		0		0		0
##	CSI044	0	0	0.0000006			0		0		0		0
##	CSI055	0	0	0.0000006			0		0		0		0
##	CSI065	0	0	3.782005			0		0		0		0
##	CSI076	0	_	0.0000006		20044	0	20045	0		0	00.47	0
##	QQT004		Otu08342		Utu(		Utu(		Otu		UtuO		
##	CSI001	0	0	0		0		0		0		0	
##	CSI012 CSI022	0	0	0		0		0		0		0	
##	CS1022 CS1044	0	0	0		0		0		0		0	
##	CS1044 CS1055	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI003	0	0	0		0		0		0		0	
##	CDIOTO	-	3348 Otu08	-	3350	-	3351	•	352	•	353	-	354
##	CST001	4.6906526		0	0	oudoc	0	oudoc	0	oudoc	0	o cuoci	0
##		0.0000000		0	0		0		0		0		0
##		0.0000006		0	0		0		0		0		0
##	CSI044	0.0000006	e+00	0	0		0		0		0		0
##	CSI055	0.0000006	e+00	0	0		0		0		0		0
##	CSI065	0.0000006	e+00	0	0		0		0		0		0
##	CSI076	0.0000006	e+00	0	0		0		0		0		0
##		Otu08355	Otu08356	Otu08	3357	Otu08	3358	(	)tu08	3359 (	tu08	360	
##	CSI001	0	0	0.0000006	e+00		0	0.000	)000e	e+00		0	
##	CSI012	0	0	0.0000006	00+e		0	0.000	0000€	e+00		0	
##	CSI022	0		0.0000006			0	0.000				0	
	CSI044	0		0.0000006				0.000				0	
	CSI055	0		2.151417				2.151				0	
	CSI065	0		0.0000006				0.000				0	
	CSI076	0		0.0000006				0.000				0	
##	~~~~		Otu08362		Otu(		Otu(		Otu			Otu083	
	CSI001	0	0	0		0		0				0000e	
	CSI012	0	0	0		0		0				4912e	
##	CSI022	0	0	0		0		0				0000e	
##	CSI044	0	0	0		0		0				0000e	
##	CSI055 CSI065	0	0	0		0		0				0000e-	
	CS1005			0		0		0				0000e-	
##	CDIOLO	0 0+1108368	0 Otu08369	-	Ω±11/		Ω±11/					Otu083	
	CSI001	0	0 0 0	0	o cut	0	ocut		4 60	90652e		Judo	0
	CSI001	0	0	0		0				000026			0
	CSI022	0	0	0		0				00000			0
	CSI044	0	0	0		0				00000			0

```
## CSI055
                  0
                            0
                                      0
                                                          0 0.00000e+00
## CSI065
                                                0
                                                          0 0.000000e+00
                                                                                  0
                  0
                            0
                                      0
  CSI076
##
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
               Otu08375 Otu08376 Otu08377 Otu08378 Otu08379
##
                                                                     Otu08380
## CSI001 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0 0.000000e+00
## CSI012 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0 1.724971e-05
## CSI022 4.303111e-05
                                                     0
                                                              0 0.00000e+00
                                 0
                                          0
## CSI044 0.000000e+00
                                 0
                                          0
                                                     0
                                                              0 0.000000e+00
   CSI055 0.000000e+00
                                 0
                                          0
                                                     0
                                                              0 0.000000e+00
                                 Λ
                                           0
                                                     0
   CSI065 0.000000e+00
                                                              0 0.00000e+00
   CSI076 0.000000e+00
                                           0
                                                     0
                                                              0 0.00000e+00
                                   Otu08383 Otu08384 Otu08385
                                                                Otu08386 Otu08387
##
           Otu08381 Otu08382
## CSI001
                  0
                            0 2.345326e-05
                                                    0
                                                              0
                                                                        0
                                                                                   0
## CSI012
                            0 0.00000e+00
                                                     0
                                                              0
                                                                                   0
                  0
                                                                        0
## CSI022
                  0
                            0 2.151556e-05
                                                     0
                                                              0
                                                                        0
                                                                                   0
##
  CSI044
                  0
                            0 0.00000e+00
                                                     0
                                                               0
                                                                        0
                                                                                   0
                  0
                            0 0.000000e+00
                                                     0
                                                              0
                                                                        0
                                                                                   0
##
   CSI055
   CSI065
                            0 0.00000e+00
                                                     0
                                                               0
                                                                                   0
                            0 0.000000e+00
                                                     0
                                                              0
                                                                        0
                                                                                  0
##
   CST076
                  0
##
               Otu08388
                             Otu08389 Otu08390 Otu08391 Otu08392 Otu08393
  CSI001 0.000000e+00 4.690652e-05
                                               Λ
                                                         Λ
                                                                   0
                                                                             Λ
  CSI012 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI022 0.000000e+00 0.000000e+00
                                                                   0
                                               0
                                                         0
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                                                   0
                                               0
                                                         0
                                                                             0
   CSI055 0.000000e+00 0.000000e+00
                                               0
                                                                   0
                                                         0
                                                                             0
   CSI065 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
           Otu08394 Otu08395 Otu08396 Otu08397 Otu08398 Otu08399
##
                                                                      Otu08400
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI044
                  0
                            0
                                      0
                                                0
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                                                                    0
                                                                              0
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI065
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                  0
                                      0
##
   CSI076
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
               Otu08401 Otu08402 Otu08403 Otu08404 Otu08405 Otu08406 Otu08407
## CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                   0
## CSI012 5.174912e-05
                                 0
                                          0
                                                     0
                                                              0
                                                                        0
                                                                                   0
## CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
## CSI044 0.000000e+00
                                 0
                                          0
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                                                                                   O
   CSI055 0.000000e+00
                                           0
                                                     0
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                                                                                   0
## CSI065 0.000000e+00
                                 0
                                          0
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                                                                                   0
                                                              0
   CSI076 0.000000e+00
                                 0
                                                     0
                                                                        0
                                                                                   0
           Otu08408 Otu08409 Otu08410
                                             Otu08411 Otu08412 Otu08413 Otu08414
##
                                      0 2.345326e-05
## CSI001
                  0
                            0
                                                              0
                                                                        0
                                                                                   0
## CSI012
                            0
                                      0 0.000000e+00
                                                               0
                                                                        0
                                                                                   0
                  0
## CSI022
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                        0
                                                                                   0
                            0
                                                               0
                                                                                   0
## CSI044
                  0
                                      0 0.00000e+00
                                                                        0
##
  CSI055
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                        0
                                                                                  0
##
   CSI065
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                        0
                                                                                   0
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                   0
##
##
           Otu08415 Otu08416 Otu08417 Otu08418 Otu08419 Otu08420 Otu08421
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
```

```
## CSI022
                  0
                            0
                                      0
                                                                   0
                                                                             0
   CST044
                  0
                            0
                                               0
                                                         0
##
                                      0
                                                                   0
                                                                             0
   CSI055
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
##
   CST076
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
                                                                        Otu08427
##
               Otu08422 Otu08423
                                      Otu08424 Otu08425 Otu08426
   CSI001 0.000000e+00
                                0 2.345326e-05
                                                        0
                                                                  0 0.00000e+00
  CSI012 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI022 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.000000e+00
   CSI044 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0 1.971570e-05
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 2.151417e-05
   CSI065 0.000000e+00
                                                        0
                                0 0.00000e+00
                                                                  0 3.782005e-05
##
   CSI076 0.000000e+00
                                0 0.000000e+00
                                                                  0 0.000000e+00
##
          Otu08428
                         Otu08429 Otu08430 Otu08431
                                                          Otu08432
                                                                        Otu08433
##
  CSI001
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
   CSI012
                  0 0.00000e+00
                                          0
                                                     1.724971e-05 0.000000e+00
                                          0
                                                     0.000000e+00 0.000000e+00
##
   CSI022
                  0 4.303111e-05
   CSI044
                  0 0.000000e+00
                                          0
                                                     0.000000e+00 0.000000e+00
                                                     0.000000e+00 0.000000e+00
   CSI055
                                          0
##
                  0 0.00000e+00
##
   CSI065
                  0 0.000000e+00
                                          0
                                                     0.000000e+00 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
   CST076
                  0 0.000000e+00
                                          0
##
               Otu08434
                             Otu08435 Otu08436
                                                     Otu08437 Otu08438 Otu08439
   CSI001 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
##
                                                                                0
   CSI012 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
   CSI022 0.000000e+00 2.151556e-05
                                              0 2.151556e-05
                                                                      0
                                                                                0
   CSI044 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
   CSI055 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
                                              0 0.000000e+00
   CSI065 0.000000e+00 0.000000e+00
                                                                      0
                                              0 0.00000e+00
                                                                                0
                                              0 0.000000e+00
                                                                      0
   CSI076 0.000000e+00 0.000000e+00
                                                                                0
##
##
           Otu08440 Otu08441 Otu08442 Otu08443
                                                      Otu08444 Otu08445
                                                                         Otu08446
##
   CSI001
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI012
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
##
   CSI022
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                  0
                            0
                                                                       0
                                                                                 0
##
   CSI044
                                     0
                                               0 0.00000e+00
   CSI055
                  0
                            0
                                      0
                                                 0.000000e+00
                                                                       0
                                                                                 0
                            0
                                                                       0
                                                                                 0
##
   CST065
                  0
                                      0
                                               0 0.00000e+00
##
   CSI076
                            0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
               Otu08447 Otu08448
                                      Otu08449 Otu08450 Otu08451 Otu08452
   CSI001 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI012 0.000000e+00
                                                                  0
                                                                            0
##
                                0 3.449941e-05
                                                        0
   CSI022 0.000000e+00
                                                                  0
                                                                            0
                                0 2.151556e-05
                                                        0
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                        0
                                                                  0
                                                                            0
   CSI065 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
##
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                                            0
##
           Otu08453 Otu08454
                                  Otu08455 Otu08456
                                                     Otu08457 Otu08458 Otu08459
##
  CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI012
                                                                                 0
##
                  0
                            0 3.449941e-05
                                                    0
                                                             0
                                                                       0
   CSI022
                  0
                            0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI044
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
                              0.00000e+00
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI055
                            0
##
  CSI065
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI076
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
          Otu08460 Otu08461 Otu08462 Otu08463 Otu08464 Otu08465 Otu08466
```

```
## CSI001
                   0
                             0
                                                                                0
  CSI012
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
                                       0
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                             0
                                                 0
   CSI044
                   0
                                       0
                                                           0
                                                                      0
                                                                                0
##
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
   CSI065
                   0
                                       0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
   CSI076
                     Otu08468
                               Otu08469 Otu08470 Otu08471 Otu08472
##
           Otu08467
                                                                        0tu08473
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
   CSI012
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
                   0
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                                                                      0
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                                0
##
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                             0
                                                 0
                                                                      0
                                                                                0
##
   CSI065
                   0
                                       0
                                                           0
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu08474 Otu08475
                                    Otu08476
                                                  Otu08477 Otu08478 Otu08479
  CSI001
                   0
                             0 0.000000e+00 0.000000e+00
                                                                    0
##
                                                                               0
##
   CSI012
                   0
                             0 0.000000e+00 0.000000e+00
                                                                    0
                                                                               0
   CSI022
                   0
                               0.000000e+00 0.000000e+00
                                                                    0
                                                                               0
##
##
   CSI044
                   0
                               0.000000e+00 0.000000e+00
                                                                    0
                                                                               0
##
   CSI055
                   0
                               0.000000e+00 0.000000e+00
                                                                    0
                                                                               0
   CSI065
                               0.000000e+00 0.000000e+00
                                                                    0
                   0
                             0 0.000000e+00 0.000000e+00
                                                                    0
##
   CSI076
                                                                               0
           Otu08480
                     Otu08481
                               Otu08482 Otu08483 Otu08484 Otu08485
                                                                            Otu08486
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
  CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
                   0
                             0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
   CSI044
                                       0
                             0
                                                 0
   CSI055
                   0
                                       0
                                                           0
                                                                      0 0.000000e+00
##
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
##
           Otu08487
                          Otu08488 Otu08489 Otu08490 Otu08491 Otu08492 Otu08493
##
   CSI001
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI012
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
   CSI022
                     0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI044
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
##
   CSI055
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                                    0
##
  CSI065
                     0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
                     0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
   CSI076
##
           Otu08494
                     Otu08495
                                    Otu08496 Otu08497
                                                        Otu08498
                                                                  Otu08499 Otu08500
                             0 0.0000000000
                                                      0
                                                                0
  CSI001
                   0
                                                                                    0
## CSI012
                   0
                             0 0.000000000
                                                      0
                                                                0
                                                                          0
                                                                                    0
                               0.0000000000
                                                                0
                                                                                    0
   CSI022
                   0
                             0
                                                      0
                                                                          0
                   0
                                                      0
                                                                0
                                                                          Λ
                                                                                    0
##
   CSI044
                               0.000000000
   CSI055
                             0 0.0000000000
                                                      0
                                                                0
                                                                                    0
                   0
## CSI065
                                                                                    0
                   0
                             0 0.0000000000
                                                      0
                                                                0
                                                                          0
##
   CSI076
                   0
                             0 0.0001445337
                                                      0
                                                                0
                                                                                    0
                                        Otu08503 Otu08504 Otu08505
##
           Otu08501
                          Otu08502
                                                                           Otu08506
## CSI001
                   0 0.000000e+00 0.0000000000
                                                          0
                                                                    0 2.345326e-05
##
   CSI012
                   0 0.000000e+00 0.0000000000
                                                          0
                                                                    0 0.00000e+00
   CSI022
                   0 0.000000e+00 0.0000000000
                                                          0
                                                                    0 0.000000e+00
##
## CSI044
                   0 0.000000e+00 0.0000000000
                                                          0
                                                                    0 0.00000e+00
## CSI055
                   0 0.000000e+00 0.0000000000
                                                          0
                                                                    0 0.000000e+00
## CSI065
                   0 3.782005e-05 0.0001134602
                                                          0
                                                                    0 0.000000e+00
```

##	CSI076	0	2.890675	75e-05 0.0000000000 0 0 0.000					+00
##		Otu08507	Otu08508	Otu08509	Otu08510	Otu08511	Otu08512	Otu08513	1
##	CSI001	0	0	0	0	0	0	C	)
##	CSI012	0	0	0	0	0	0	C	)
##	CSI022	0	0	0	0	0	0	C	)
##	CSI044	0	0	0	0	0	0	C	)
##	CSI055	0	0	0	0	0	0	C	)
##	CSI065	0	0	0	0	0	0	C	)
##	CSI076	0	0	0	0	0	0	C	)
##		Otu08514	Otu08515	Otu08516	Otu08517	Otu08518	Otu08519	Otu08520	)
##	CSI001	0	0	0	0	0	0	C	)
##	CSI012	0	0	0	0	0	0	C	)
##	CSI022	0	0	0	0	0	0	C	)
##	CSI044	0	0	0	0	0	0	C	)
##	CSI055	0	0	0	0	0	0	C	)
##	CSI065	0	0	0	0	0	0	C	)
##	CSI076	0	0	0	0	0	0	C	
##			Otu08522				8525 Otu0		
##	CSI001	0	0		0.0000000		0	0	0
##	CSI012	0	0	0	1.724971		0	0	0
##	CSI022	0	0	0	0.000000		0	0	0
##	CSI044	0	0	0			0	0	0
##	CSI055	0	0	0			0	0	0
##	CSI065	0	0	0	0.000000		0	0	0
##	CSI076	Otu08528	-				0 532 Otu08!	•	Ŭ
##	CSI001		0.00000e+		0	0	0	0	0
##	CSI012		0.00000e		0	0	0	0	0
##	CSI022		0.00000e+		0	0	0	0	0
##	CSI044	0	1.97157e-		0	0	0	0	0
##	CSI055	0	0.00000e+		0	0	0	0	0
##	CSI065	0	0.00000e	+00	0	0	0	0	0
##	CSI076	0	0.00000e+	+00	0	0	0	0	0
##		Otu08535	Otu08536	Otu08537	Otu08538	Otu08539	Otu08540	Otu08541	
##	CSI001	0	0	0	0	0	0	C	)
##	CSI012	0	0	0	0	0	0	C	)
##	CSI022	0	0	0	0	0	0	C	)
##	CSI044	0	0	0	0	0	0	C	)
##	CSI055	0	0	0	0	0	0	C	)
##	CSI065	0	0	0	0	0	0	C	)
##	CSI076	0	0	0	0	0	0	C	
##		Otu08542	Otu08543	Otu08544	Otu08545	Otu08546	Otu08547	Otu08548	}
	CSI001	0	0	0	0	0	0	C	
	CSI012	0	0	0	0	0	0	C	
	CSI022	0	0	0	0	0	0	C	
	CSI044	0	0	0	0	0	0	C	
##	CSI055	0	0	0	0	0	0	C	
##	CSI065	0	0	0	0	0	0	C	
##	CSI076	0+,,09540	0+,,00550	0+0	0	0	0+00	C EE2 O+110	
##	CCTAA1	Otu08549		Otu08		Otu08552	0tu08; 7.035977e	553 Otu08 -05	
	CSI001 CSI012	0					7.035977e <sup>.</sup> 0.000000e <sup>.</sup>		0
	CS1012	0					0.000000e <sup>.</sup> 0.000000e <sup>.</sup>		0
	CS1022 CS1044	0					0.000000e <sup>.</sup> 0.000000e <sup>.</sup>		0
π#	001044	U	U	0.000000	0.000	20006100	o.000000e	. 00	U

```
## CSI055
                            0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI065
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI076
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
                         Otu08556 Otu08557 Otu08558 Otu08559 Otu08560 Otu08561
##
          Otu08555
## CSI001
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
## CSI012
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI022
                  0 0.000000e+00
                                           0
                                                               0
                                                                                   0
## CSI044
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
## CSI055
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
                                           0
                                                     0
                                                               0
                                                                                   0
## CSI065
                  0 0.000000e+00
   CSI076
                  0 0.000000e+00
##
           Otu08562 Otu08563 Otu08564 Otu08565 Otu08566 Otu08567 Otu08568
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                            0
                                      0
                                                0
                                                          0
                                                                    0
                  0
                                                                              0
## CSI022
                  0
                                                          0
                                                                    0
                                                                              0
                            0
                                      0
                                                0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
## CSI055
                                                                              0
## CSI065
                            0
                            0
                                                0
                                                          0
## CST076
                  0
                                      0
                                                                    0
                                                                              0
           Otu08569 Otu08570 Otu08571 Otu08572 Otu08573 Otu08574
                                                                          Otu08575
## CSI001
                  Λ
                            0
                                      Ω
                                                0
                                                          0
                                                                    0 0.00000e+00
## CSI012
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
## CSI022
                  0
                            0
                                                                    0 0.00000e+00
                                      0
                                                0
                                                          0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                            0
                                      0
                                                0
                                                          0
## CSI055
                  0
                                                                    0 6.45425e-05
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
## CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
           Otu08576 Otu08577 Otu08578 Otu08579 Otu08580 Otu08581 Otu08582
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI055
                  0
                            0
                                      0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
##
          Otu08583 Otu08584 Otu08585 Otu08586 Otu08587 Otu08588 Otu08589
## CSI001
                  0
                            0
                                      0
                                                0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
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                                                          0
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## CSI044
                  Ω
                            Λ
                                      0
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## CSI055
                            0
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## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                                                0
   CSI076
                  0
                            0
                                      0
                                                          0
                                                                    0
                                                                              0
           Otu08590 Otu08591 Otu08592 Otu08593 Otu08594 Otu08595 Otu08596
##
                                                          0
## CSI001
                  0
                            0
                                      0
                                                0
                                                                    0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
## CSI044
                                      0
                                                                              0
## CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
           Otu08597 Otu08598 Otu08599 Otu08600
                                                       Otu08601 Otu08602 Otu08603
## CSI001
                                                0 0.000000e+00
                  0
                            0
                                      0
                                                                         0
                                                                                   0
## CSI012
                  0
                            0
                                      0
                                                0 5.174912e-05
                                                                         0
                                                                                   0
```

```
## CSI022
                   0
                             0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
##
  CSI044
                   0
                             0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
                                       0
##
  CSI055
                   0
                             0
                                                 0 0.00000e+00
                                                                           0
                                                                                     0
                                                                                     0
  CSI065
                   0
                             0
                                                 0 0.00000e+00
                                                                          0
##
##
   CSI076
                   0
                             0
                                                 0 0.000000e+00
                                                                          0
                                                                                     0
           Otu08604
                          Otu08605 Otu08606 Otu08607 Otu08608
                                                                       Otu08609
##
                                            0
                                                                0 0.00000e+00
  CSI001
                   0 0.00000e+00
                                                      0
## CSI012
                   0 0.00000e+00
                                            0
                                                      0
                                                                0 0.00000e+00
##
   CSI022
                   0 0.000000e+00
                                            0
                                                      0
                                                                0 0.000000e+00
                                            0
                                                      0
##
   CSI044
                   0 0.000000e+00
                                                                0
                                                                  0.000000e+00
   CSI055
                   0 2.151417e-05
                                            0
                                                      0
                                                                  0.000000e+00
                                            0
   CSI065
                                                      0
                                                                  0.000000e+00
##
                   0 0.00000e+00
                                                                0
##
   CSI076
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                  0.000000e+00
               Otu08610 Otu08611 Otu08612 Otu08613 Otu08614
##
                                                                  Otu08615 Otu08616
##
   CSI001 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI012 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI022 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI044 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                                     0
   CSI055 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
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                                                                          0
   CSI065 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
   CSI076 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                                     0
##
           Otu08617 Otu08618 Otu08619 Otu08620 Otu08621 Otu08622
                                                                             Otu08623
## CSI001
                             0
                                                 0
                                                            0
                                                                      0 2.345326e-05
                   0
                                       0
   CSI012
                             0
                                                 0
                                                            0
                                                                      0 0.000000e+00
##
                   0
                                       0
## CSI022
                   0
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                                       0
                                                 0
                                                            0
                                                                      0 0.000000e+00
   CSI044
                   0
                             0
                                       0
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                                                                      0 0.000000e+00
##
   CSI055
                   0
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                                       0
                                                 0
                                                            0
                                                                      0 0.00000e+00
   CSI065
                   0
                             0
                                                 0
                                                            0
                                                                      0 0.000000e+00
##
                                       0
                             0
                                                 0
   CSI076
                   0
                                       0
                                                            0
                                                                      0 0.000000e+00
##
                     Otu08625
                               Otu08626 Otu08627 Otu08628
##
           Otu08624
                                                                  Otu08629 Otu08630
## CSI001
                   0
                             0
                                       0
                                                 0
                                                            0 0.00000e+00
                                                                                     0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                            0 0.00000e+00
                                                                                     0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                            0 0.00000e+00
                                                                                     0
                   0
                             0
                                                 0
                                                                                     0
##
   CSI044
                                       0
                                                            0 0.00000e+00
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                            0 0.00000e+00
                                                                                     0
   CSI065
                   0
                             0
                                       0
                                                 0
                                                            0 0.000000e+00
                                                                                     0
##
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                            0 0.00000e+00
                                                                                     0
##
           Otu08631
                     Otu08632
                               Otu08633 Otu08634 Otu08635 Otu08636 Otu08637
## CSI001
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
  CSI012
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
  CSI022
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
                   0
                                       0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                             0
                                                 0
##
   CSI055
                   0
                                       0
                                                            0
                                                                      0
                                                                                0
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI076
           Otu08638
                     Otu08639
                               Otu08640 Otu08641 Otu08642 Otu08643
##
                                                                        Otu08644
## CSI001
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
   CSI012
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
                   0
                                       0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI044
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
   CSI055
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
                                       0
                             0
                                                                      0
## CSI065
                   0
                                       0
                                                 0
                                                            0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
           Otu08645 Otu08646
                                    Otu08647 Otu08648 Otu08649 Otu08650 Otu08651
```

```
## CSI001
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI012
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                                 0
##
                                                                       0
                            0 0.000000e+00
##
  CSI022
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
  CSI044
                  0
                            Ω
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
##
##
   CSI055
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI065
                  0
                            0 0.00000e+00
                                                             0
##
   CSI076
                  0
                            0 0.000000e+00
                                                    0
                                                                                 0
                                                    Otu08655 Otu08656
##
               Otu08652
                            Otu08653 Otu08654
   CSI001 0.000000e+00 0.00000e+00
                                             0 0.000000e+00
                                                                     0
                                                                     0
   CSI012 0.000000e+00 0.00000e+00
                                             0 0.000000e+00
   CSI022 0.000000e+00 0.00000e+00
                                             0 0.000000e+00
                                                                     0
   CSI044 0.000000e+00 7.88628e-05
                                                                     0
                                             0 0.000000e+00
   CSI055 0.000000e+00 0.00000e+00
                                             0 0.000000e+00
                                                                     0
                                             0 0.000000e+00
   CSI065 0.000000e+00 0.00000e+00
                                                                     0
   CSI076 0.000000e+00 0.00000e+00
                                             0 0.000000e+00
                                                                     0
##
##
               Otu08657 Otu08658 Otu08659 Otu08660
                                                          Otu08661
                                                                        Otu08662
   CSI001 0.000000e+00
##
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI012 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI022 0.000000e+00
                                          0
                                                    0 0.000000e+00 0.000000e+00
                                0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
   CSI055 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
   CSI065 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
  CSI076 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
               Otu08663 Otu08664 Otu08665
                                           Otu08666
                                                      Otu08667 Otu08668 Otu08669
##
##
  CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI012 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
   CSI044 0.000000e+00
                                                                       0
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
   CSI055 4.302833e-05
                                                                       0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI076 5.781349e-05
                                          0
                                                    0
                                                             0
                                                                                 0
##
           Otu08670 Otu08671
                                  Otu08672 Otu08673
                                                          Otu08674
                                                                        Otu08675
## CSI001
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
  CSI012
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
                  0
   CSI022
                  0
                              0.000000e+00
                                                     4.303111e-05 0.000000e+00
##
                              0.000000e+00
                                                     0.000000e+00 0.000000e+00
##
  CST044
                  0
                            0
##
  CSI055
                  0
                             2.151417e-05
                                                     0.000000e+00 0.000000e+00
## CSI065
                  0
                            Ω
                              0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
                  0
                              0.000000e+00
                                                    0 0.000000e+00 2.890675e-05
##
   CST076
##
           Otu08676 Otu08677
                              Otu08678
                                                          Otu08680 Otu08681
                                            Ot:1108679
                                      0 2.345326e-05 0.000000e+00
  CSI001
                  0
                            0
                                                                           0
## CSI012
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                           0
##
  CSI022
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                           0
                            0
                  0
                                      0 0.000000e+00 0.000000e+00
                                                                           0
##
   CSI044
                            0
                                      0 0.000000e+00 0.000000e+00
##
  CSI055
                  0
                                                                           0
                                      0 0.000000e+00 0.000000e+00
## CSI065
                  0
                            0
                                                                           0
##
   CSI076
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                           0
                                 Otu08684 Otu08685 Otu08686
##
           Otu08682 Otu08683
                                                                   Otu08687
## CSI001
                  0
                            0 0.00000e+00
                                                  0
                                                            0 0.000000e+00
##
  CSI012
                  0
                              0.00000e+00
                                                  0
                                                            0 0.000000e+00
                  0
                                                  0
##
  CSI022
                            0
                              0.00000e+00
                                                            0.0.000000e+00
                                                  0
## CSI044
                  0
                            0 7.88628e-05
                                                            0 0.000000e+00
## CSI055
                  0
                            0 0.00000e+00
                                                  0
                                                            0 0.000000e+00
## CSI065
                  0
                            0 0.00000e+00
                                                  0
                                                            0 0.00000e+00
```

```
## CSI076
                  0
                            0 0.00000e+00
                                                  0
                                                            0 0.00000e+00
##
          Ot1108688 Ot1108689
                                                              Ot:1108692
                                  Ot:1108690
                                                Ot:1108691
## CSI001
                  0
                            0 0.000000e+00 4.690652e-05 2.345326e-05
## CSI012
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI022
                  0
                              0.000000e+00 0.000000e+00 0.000000e+00
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI044
                            0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI055
## CSI065
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI076
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
                                      Otu08695 Otu08696 Otu08697 Otu08698
##
               Otu08693 Otu08694
  CSI001 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                           0
                                                        0
                                                                  0
                                                                           0
   CSI012 0.000000e+00
                                0 0.00000e+00
   CSI022 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                                                                  0
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                           0
   CSI055 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                                0 0.00000e+00
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                           0
                                                        0
                                                                  0
##
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                                           0
                        Otu08700
##
           Otu08699
                                      Otu08701 Otu08702 Otu08703
                                                                        Otu08704
## CST001
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
##
  CSI012
                  0 0.000000e+00 6.899883e-05
                                                        0
                                                                  0 3.449941e-05
##
  CSI022
                  0 2.151556e-05 0.000000e+00
                                                        Λ
                                                                  0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
                                                        0
   CST044
                                                                  0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
##
  CSI055
                                                        0
                                                                  0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
##
   CSI065
                                                        0
                                                                  0 0.00000e+00
##
   CST076
                  0 0.000000e+00 0.000000e+00
                                                        Ω
                                                                  0.000000e+00
##
               Otu08705 Otu08706 Otu08707 Otu08708 Otu08709 Otu08710 Otu08711
##
  CSI001 0.000000e+00
                                                   0
                                                             0
                                                                                 0
                                0
                                          0
                                                                       0
                                                                                 0
   CSI012 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI022 4.303111e-05
   CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI055 0.000000e+00
                                0
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                                                                       0
                                                                                 0
   CSI065 0.000000e+00
                                0
                                          0
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                                                             0
                                                                       0
                                                                                 0
   CSI076 0.000000e+00
                                0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
           Otu08712 Otu08713 Otu08714
                                            Otu08715 Otu08716
                                                               Otu08717
                                                                         Otu08718
  CSI001
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
  CSI012
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
                  0
## CSI022
                  0
                            0
                                      0 0.00000e+00
                                                             0
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                                                                                 0
## CSI044
                  Ω
                            0
                                     0 0.00000e+00
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   CST055
                                      0 2.151417e-05
                                                                       0
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##
  CSI065
                  \cap
                                     0.000000e+00
                                                             0
##
   CST076
                  0
                            0
                                      0 0.000000e+00
                                                                                 0
##
               Otu08719 Otu08720 Otu08721 Otu08722 Otu08723
                                                               Otu08724
                                                                         0t_{11}08725
   CSI001 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                                   0
                                                             0
                                                                                 0
   CSI012 0.000000e+00
                                0
                                          0
                                                                       0
   CSI022 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI044 0.000000e+00
                                0
                                          0
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                                                             0
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                                                                       0
   CSI055 0.000000e+00
                                0
                                          0
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                                                                       0
                                                                                 0
                                0
                                                             0
                                                                       0
                                                                                 0
   CSI065 0.000000e+00
                                          0
                                                   0
##
   CSI076 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
           Otu08726
                        Otu08727
                                      Otu08728
                                                     Otu08729 Otu08730 Otu08731
  CSI001
                  0 2.345326e-05 0.000000e+00 0.000000e+00
##
                                                                      0
                                                                                0
## CSI012
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
## CSI022
                  0 0.000000e+00 0.000000e+00 2.151556e-05
                                                                      0
                                                                                0
## CSI044
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
```

```
## CSI055
                  0 0.000000e+00 0.000000e+00 0.000000e+00
## CST065
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
##
  CSI076
                  0 2.890675e-05 5.781349e-05 0.000000e+00
                                                                      0
                                                                                0
                                                               Otu08737 Otu08738
##
          Otu08732 Otu08733 Otu08734 Otu08735 Otu08736
## CST001
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
## CSI012
                  0
                            0
                                     0
                                               0
                                                                                 0
                                                         0 0.00000e+00
                            0
## CSI022
                  0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
## CSI044
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
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##
  CSI055
                  0
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                                     0
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                                                         0 0.000000e+00
                                                                                 O
                            0
                                     0
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                                                                                 Λ
##
  CSI065
                  0
                                                         0 0.00000e+00
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
          Otu08739 Otu08740 Otu08741 Otu08742 Otu08743 Otu08744 Otu08745
##
##
  CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                            0
                                               0
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                  0
                                     0
                                                         0
                                                                            0
## CSI022
                  0
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                                                                   0
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                                     0
                                               0
## CSI044
                  0
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                                                                   0
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                  0
                            0
                                               0
                                                         0
##
  CSI055
                                     0
                                                                   0
                                                                            0
##
  CSI065
                            0
                                                                            0
##
   CST076
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
           Otu08746 Otu08747 Otu08748 Otu08749 Otu08750
                                                               Otu08751
## CSI001
                  Ω
                            0
                                     0
                                               0
                                                         0 2.345326e-05
## CSI012
                            0
                                     0
                                               0
                                                         0 0.000000e+00
## CSI022
                            0
                  0
                                     0
                                               0
                                                         0 2.151556e-05
                            0
## CSI044
                  0
                                     0
                                               0
                                                         0 0.00000e+00
                            0
                                     0
                                               0
## CST055
                  0
                                                         0 0.00000e+00
  CSI065
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
##
   CSI076
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
               Otu08752 Otu08753
                                      Otu08754 Otu08755 Otu08756 Otu08757
  CSI001 0.000000e+00
                                0 0.000000e+00
                                                                 0
                                                                           0
                                                        0
  CSI012 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                           0
  CSI022 2.151556e-05
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                           0
   CSI044 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                           0
   CSI055 0.000000e+00
                                0 2.151417e-05
                                                        0
                                                                  0
                                                                           0
   CSI065 0.000000e+00
                                                                  0
                                0 0.00000e+00
                                                        0
                                                                           0
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                           0
##
          Otu08758 Otu08759
                                  Otu08760
                                                Otu08761 Otu08762 Otu08763
##
## CSI001
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
## CSI012
                  Ω
                            0 0.000000e+00 1.724971e-05
                                                                  0
                                                                           0
## CSI022
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
                  Ω
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
## CSI044
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
  CSI055
                                                                           0
## CSI065
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
##
   CST076
                  Λ
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
                        Otu08765 Otu08766
                                                Otu08767 Otu08768 Otu08769
##
          Otu08764
## CSI001
                  0 0.00000e+00
                                          0 2.345326e-05
                                                                  0
## CSI012
                  0 1.724971e-05
                                                                  0
                                                                           0
                                          0 0.00000e+00
##
  CSI022
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                           0
                                                                  0
                                                                           0
  CSI044
                  0 0.00000e+00
                                          0 0.00000e+00
                                          0 0.000000e+00
  CSI055
                  0 0.000000e+00
                                                                  0
                                                                           0
##
   CSI065
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                           0
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                  0
##
##
          Otu08770 Otu08771
                                  Otu08772 Otu08773 Otu08774 Otu08775 Otu08776
## CSI001
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI012
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
```

```
## CSI022
                             0 2.151556e-05
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
  CSI044
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                     0
  CSI055
##
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                     0
  CSI065
                                                                                     0
                   0
                             0
                               0.000000e+00
                                                      0
                                                                Λ
                                                                          0
##
##
   CST076
                   0
                             0
                               0.000000e+00
                                                                0
                                                                          0
                                                                                     0
           Otu08777 Otu08778
                               Otu08779 Otu08780
                                                        Otu08781 Otu08782 Otu08783
##
## CSI001
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
## CSI012
                   0
                             0
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                                                 0 0.00000e+00
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##
   CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
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##
  CSI044
                   0
                                       0
                                                 0 0.000000e+00
                                                                          Λ
   CSI055
                   0
                             0
                                       0
                                                 0 4.302833e-05
                                                                                     0
                                                                                     0
   CSI065
                   0
                             0
                                       0
                                                                          0
##
                                                 0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                     0
                     Otu08785
##
           Otu08784
                               Otu08786
                                             Otu08787 Otu08788 Otu08789 Otu08790
## CSI001
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                    0
##
   CSI012
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                    0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
##
   CSI022
                   0
                                                                                    0
   CSI044
                   0
                             0
                                         1.97157e-05
                                                                         0
                                                                                    0
   CSI055
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
##
                                                                                   0
##
   CSI065
                   0
                             0
                                         0.00000e+00
                                                               0
                                                                         0
                                                                                    0
##
   CST076
                   Λ
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                    Λ
##
           Otu08791
                     Otu08792 Otu08793 Otu08794 Otu08795 Otu08796
                                                                             Otu08797
## CSI001
                                                            0
                                                                      0 0.000000e+00
                   0
                             0
                                       0
                                                 0
   CSI012
                             0
                                                 0
                                                            0
                                                                      0 3.449941e-05
##
                   0
                                       0
                                                            0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                                      0 0.00000e+00
   CSI044
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.000000e+00
##
   CSI055
                   0
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                                                            0
                                                                      0 0.00000e+00
   CSI065
                   0
                             0
                                                 0
                                                            0
                                                                      0 0.000000e+00
##
                                       0
                             0
                                                 0
                                                            0
   CSI076
                   0
                                       0
                                                                      0 0.000000e+00
##
                     Otu08799
                               Otu08800
##
           Otu08798
                                         Otu08801 Otu08802 Otu08803 Otu08804
## CSI001
                   0
                             0
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                                                                      0
                                                                                0
##
   CSI012
                   0
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##
   CSI022
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                                       0
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                                                            0
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   CSI044
                   0
                             0
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##
                                       0
   CSI055
                   0
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                                                 0
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                                                                      0
                                                                                0
##
   CSI065
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
                   0
                                       0
##
   CSI076
                             0
                                       0
                                                            0
                                                                      0
                                                                                0
##
               Otu08805 Otu08806 Otu08807
                                                 Otu08808
                                                           Otu08809
                                                                      Otu08810
   CSI001 2.345326e-05
                                 0
                                            0 0.00000e+00
                                                                    0
   CSI012 0.000000e+00
                                 0
                                            0 0.00000e+00
                                                                              0
                                                                    0
   CSI022 0.000000e+00
                                 0
                                            0 0.00000e+00
                                                                              0
                                                                    0
   CSI044 0.000000e+00
                                 0
                                             0.00000e+00
                                                                    0
                                                                              0
                                            0
   CSI055 0.000000e+00
                                 0
                                             6.45425e-05
                                                                    0
                                                                              0
                                 0
                                            0 0.00000e+00
                                                                              0
   CSI065 0.000000e+00
                                                                    0
                                 0
                                            0 0.00000e+00
   CSI076 0.000000e+00
                                                                    0
           Otu08811 Otu08812 Otu08813 Otu08814 Otu08815
##
                                                                  Otu08816
## CSI001
                   0
                             0
                                       0
                                                 0
                                                            0 4.690652e-05
   CSI012
                                                 0
##
                   0
                             0
                                       0
                                                            0 0.00000e+00
##
   CSI022
                   0
                             0
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                                                 0
                                                            0 0.000000e+00
##
   CSI044
                   0
                             0
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                                                 0
                                                              0.000000e+00
   CSI055
                   0
                             0
                                       0
                                                 0
                                                            0 0.000000e+00
##
##
  CSI065
                   0
                             0
                                       0
                                                 0
                                                            0 0.00000e+00
## CSI076
                   0
                             0
                                       0
                                                 0
                                                            0 0.000000e+00
##
               Otu08817 Otu08818 Otu08819
                                                  Otu08820
                                                                 Otu08821 Otu08822
```

```
## CSI001 0.000000e+00
                                           0 0.000000e+00 0.000000e+00
## CSI012 0.000000e+00
                                 0
                                           0 3.449941e-05 0.000000e+00
                                                                                   0
## CSI022 0.000000e+00
                                 0
                                           0 0.000000e+00 0.000000e+00
## CSI044 0.000000e+00
                                           0 0.000000e+00 0.000000e+00
                                 0
                                                                                   0
## CSI055 0.000000e+00
                                 0
                                           0 0.000000e+00 0.000000e+00
## CSI065 0.000000e+00
                                 0
                                           0 0.000000e+00 0.000000e+00
                                                                                   0
## CSI076 0.000000e+00
                                           0 0.000000e+00 0.000000e+00
                                   Otu08825 Otu08826 Otu08827 Otu08828 Otu08829
           Otu08823 Otu08824
##
## CSI001
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
## CSI012
                   0
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                                                               0
                                                                         0
                                                                                    0
                             0 0.000000e+00
## CSI022
                   0
                             0 0.000000e+00
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                                                                                    0
## CSI044
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
## CSI055
                   0
                             0 0.000000e+00
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                                                               0
                                                                                    0
## CSI065
                   0
                                                     0
                                                               0
                             0 0.00000e+00
                                                                                    0
## CSI076
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
           Otu08830
                         Otu08831 Otu08832 Otu08833 Otu08834 Otu08835 Otu08836
## CSI001
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
## CSI012
                   0 0.00000e+00
                                                               0
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## CSI022
                   0 0.000000e+00
                                           0
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                                                                                    0
## CSI044
                   0 0.00000e+00
                                           0
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                                                                         0
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## CSI055
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
## CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
## CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               Λ
           Otu08837 Otu08838 Otu08839 Otu08840 Otu08841 Otu08842 Otu08843
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
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                                                 0
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                                                                     0
                                                                               0
## CSI044
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                                                           0
                                                                     0
                                       0
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                             0
## CSI055
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                                                 0
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## CSI065
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                                                                               0
## CSI076
                   0
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                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu08844 Otu08845 Otu08846 Otu08847 Otu08848 Otu08849 Otu08850
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
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                                       0
## CSI022
                   0
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                                       0
                                                 0
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                                                                     0
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## CSI044
                   0
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                                       0
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                                                                               0
## CSI055
                   0
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## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
##
           Otu08851 Otu08852 Otu08853 Otu08854 Otu08855 Otu08856 Otu08857
                   0
                             0
## CSI001
                                       0
                                                 0
                                                           0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
## CSI044
                                                                               0
## CSI055
                   0
                             0
                                                 0
                                       0
                                                                               0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu08858 Otu08859 Otu08860 Otu08861 Otu08862 Otu08863 Otu08864
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
```

```
## CSI076
                  0
##
          Ot:108865 Ot:108866
                                  Otu08867 Otu08868
                                                          Ot1108869 Ot1108870
## CSI001
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00
## CSI012
                            0 0.000000e+00
                  0
                                                   0 0.000000e+00
                                                                            Λ
## CSI022
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00
                                                                            0
## CSI044
                            0 0.000000e+00
## CSI055
                                                    0 0.00000e+00
## CSI065
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                            0
##
  CSI076
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00
                                            Otu08874 Otu08875 Otu08876 Otu08877
##
          Otu08871 Otu08872 Otu08873
## CSI001
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                     0 0.000000e+00
## CSI012
                  0
                            0
                                                             0
                                                                       0
                                                                                 0
## CSI022
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                            0
                                                             0
## CSI044
                  0
                                     0 0.00000e+00
                                                                                 0
## CSI055
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI065
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
##
  CSI076
##
          Otu08878 Otu08879 Otu08880 Otu08881 Otu08882 Otu08883 Otu08884
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI022
                  Ω
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI044
                                                                            0
## CSI055
                            0
                  0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI065
                            0
## CSI076
                  \cap
                            0
                                     0
                                               0
                                                         \cap
          Otu08885
                        Otu08886 Otu08887 Otu08888 Otu08889 Otu08890 Otu08891
## CSI001
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                          0
                                                                                 0
  CSI012
                  0 0.00000e+00
                                                   0
                                                             0
                                                                       0
## CSI022
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI044
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CSI055
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI065
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                                 0
   CSI076
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                                 0
          Otu08892 Otu08893
##
                                  Otu08894 Otu08895 Otu08896 Otu08897
## CSI001
                  0
                            0 4.690652e-05
                                                   0
                                                             0
                                                                       0
  CSI012
                  0
                            0 1.724971e-05
                                                   0
                                                             0
                                                                       0
##
## CSI022
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
## CSI044
                  Ω
                            0 0.000000e+00
                                                    0
                                                             Λ
                                                                       0
  CSI055
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                            0 0.000000e+00
                                                    0
                                                             Λ
##
  CSI065
                            0 0.000000e+00
   CSI076
                                                             0
##
               Otu08898 Otu08899 Otu08900 Otu08901 Otu08902
                                                                   0t_{11}08903
   CSI001 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.00000000
                                                    0
   CSI012 1.724971e-05
                                0
                                          0
                                                             0 0.000000000
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000000
  CSI044 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000000
   CSI055 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000000
                                          0
   CSI065 0.000000e+00
                                                    0
                                                             0 0.00000000
   CSI076 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000115627
##
          Otu08904
                        Otu08905 Otu08906 Otu08907
                                                          Otu08908
                                                                        Otu08909
## CSI001
                  0 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
                                          0
## CSI012
                  0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI022
                  0 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
## CSI044
                  0 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
```

##	CSI055	0	0.0000006	e+00	0	0 0.000	0000e+00 (	0.000000e+00
##	CSI065	0	0.0000006	e+00	0	0 0.000	0000e+00 (	0.000000e+00
##	CSI076	0	2.890675	e-05	0	0 0.000	0000e+00 (	0.000000e+00
##		Otu08910	Otu08911	Otu08912	Otu08913	Otu08914	Otu08915	Otu08916
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	GGT001	Otu08917		Otu08919	Otu08920	Otu08921		Otu08923
##	CSI001	0	0	0	0	0	0	
##	CSI012 CSI022	0	0	0	0	0	0	0.000000e+00 2.151556e-05
##	CS1022	0	0	0	0	0	0	0.000000e+00
##	CSI044	0	0	0	0	0	0	0.000000e+00
##	CSI065	0	0	0	0	0	0	0.000000e+00
##	CSI076	0	0	0	0	0	0	0.000000e+00
##	0.000	Otu08924	Otu08925	Otu08926	Otu08927	Otu08928	-	Otu08930
##	CSI001	0	0	0	0	0	0	0.0000000000
##	CSI012	0	0	0	0	0	0	0.0000000000
##	CSI022	0	0	0	0	0	0	0.0000000000
##	CSI044	0	0	0	0	0	0	0.0000000000
##	CSI055	0	0	0	0	0	0	0.0000000000
##	CSI065	0	0	0	0	0	0	0.000000000
##	CSI076	0	0	0	0	0	0	0.000000000
##		Otu08931	Otu08932	Otu08933	Otu08934	Otu08935	Otu08936	Otu08937
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0 Otu08939	0+09040	0	0 Otu08942	0+00043	0 Otu08944
	CSI001	0.000930	0.000939	0.000940	0000941	0 0 0	0000943	0
	CSI012	0	0	0	0	0	0	0
	CSI022	0	0	0	0	0	0	0
	CSI044	0	0	0	0	0	0	0
	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu08945	Otu08946	Otu08947	Otu08948	Otu08949	Otu08950	Otu08951
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	0	0
	CSI076	0	0	0	0	0	0	0
##	GGT 004			Otu08954				
	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0

```
## CSI022
                   0
                             0
                                       0
                                                                               0
##
  CSI044
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                       0
                                                                               0
  CSI055
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu08959 Otu08960 Otu08961 Otu08962 Otu08963 Otu08964
                                                                            Otu08965
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 2.345326e-05
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
                                                           0
##
  CSI044
                   0
                             0
                                       0
                                                 0
                                                                     0 0.000000e+00
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
##
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
           Otu08966
                    Otu08967
                               Otu08968 Otu08969
                                                   Otu08970 Otu08971 Otu08972
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI022
                             0
                                                           0
                                                                     0
                                                                               0
##
                   0
                                       0
                                                 0
##
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI055
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                                       0
##
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu08973 Otu08974
                               Otu08975 Otu08976
                                                        Otu08977 Otu08978 Otu08979
## CSI001
                                                                          0
                   0
                             0
                                       0
                                                 0 2.345326e-05
                                                                                    0
   CSI012
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
##
                   0
                             0
                                       0
                                                                                    0
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
   CSI044
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
   CSI055
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
##
                             0
                                                                          0
                                                                                    0
##
   CSI065
                   0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
   CSI076
                             Λ
                                                 0 0.000000e+00
##
                   0
##
               Otu08980
                              Otu08981
                                             Otu08982 Otu08983 Otu08984 Otu08985
##
   CSI001 0.000000e+00 2.345326e-05 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
   CSI012 1.724971e-05 0.000000e+00 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
                                                               0
                                                                                   0
   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
                                                               0
                                                                                   0
##
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
                                                                                   0
##
               Otu08986 Otu08987 Otu08988 Otu08989
                                                       Otu08990
                                                                  Otu08991
   CSI001 2.345326e-05
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
   CSI012 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
##
   CSI022 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
   CSI044 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
   CSI055 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                 0
                                           0
                                                      0
                                                                0
   CSI065 0.000000e+00
                                                                          0
                                 0
                                           0
                                                      0
                                                                0
   CSI076 0.000000e+00
                                                                          0
               Otu08992 Otu08993 Otu08994 Otu08995
##
                                                        Otu08996
                                                                  Otu08997
   CSI001 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                0
   CSI012 0.000000e+00
                                 0
                                           0
                                                      0
                                                                          0
   CSI022 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
   CSI044 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
   CSI055 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
   CSI065 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
##
  CSI076 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
##
               Otu08998 Otu08999 Otu09000 Otu09001 Otu09002 Otu09003 Otu09004
```

```
## CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI012 0.000000e+00
                                          0
                                                    0
                                                                                  0
                                0
                                                              0
                                                                        0
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI044 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI065 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
##
                                0
                                                                        0
   CSI076 0.000000e+00
                                                    0
                                                              0
                                          0
                                                                                  0
##
           Otu09005 Otu09006
                                  Otu09007 Otu09008 Otu09009 Otu09010 Otu09011
## CSI001
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI012
                            0 0.00000e+00
                                                   0
                                                                       0
##
                  0
                                                             0
                                                                                 0
  CSI022
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI044
                  0
                                                   0
                                                             0
                                                                       0
##
                            0 5.91471e-05
                                                                                 0
##
   CSI055
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI065
                                                   0
                                                                       0
##
                  0
                            0 0.00000e+00
                                                             0
                                                                                 0
   CSI076
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
##
           Otu09012
                         Otu09013
                                       Otu09014 Otu09015 Otu09016
                                                                         Otu09017
  CSI001
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0 0.000000e+00
##
   CSI012
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0 0.00000e+00
  CSI022
                  0 0.000000e+00 0.000000e+00
##
                                                         0
                                                                   0 0.00000e+00
##
   CSI044
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0 0.00000e+00
##
   CSI055
                  0 2.151417e-05 0.000000e+00
                                                         Λ
                                                                   0 0.000000e+00
   CSI065
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0 0.000000e+00
  CSI076
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0 0.000000e+00
##
               Otu09018 Otu09019
                                       Otu09020 Otu09021 Otu09022 Otu09023
##
  CSI001 0.000000e+00
##
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI012 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI022 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
   CSI044 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                             0
                                                                   0
   CSI055 0.000000e+00
                                                         0
                                                                             0
                                0 2.151417e-05
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
##
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
##
           Otu09024 Otu09025 Otu09026 Otu09027 Otu09028 Otu09029
                                                                          Otu09030
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
  CSI012
                            0
                                                0
                                                          0
                                                                    0 1.724971e-05
##
                  0
                                      0
   CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                                                                    0 0.000000e+00
                            0
                                                0
                                                          0
##
  CST044
                  0
                                      0
##
  CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
## CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
   CSI076
                                             Otu09034 Otu09035 Otu09036
##
           Otu09031 Otu09032 Otu09033
                            0
## CSI001
                  0
                                      0 0.00000e+00
                                                              0
                                                                        0
## CSI012
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                        0
                                      0
  CSI022
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                        0
                  0
                            0
                                                              0
##
   CSI044
                                        0.000000e+00
                                                                        0
                            0
                                                              0
   CSI055
                  0
                                      0 0.000000e+00
                                                                        0
  CSI065
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
##
##
   CSI076
                  0
                                      0 0.000000e+00
                                                              0
##
               Otu09037
                             Otu09038 Otu09039 Otu09040 Otu09041 Otu09042
   CSI001 0.000000e+00 7.035977e-05
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI012 1.724971e-05 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI022 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI055 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI065 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
```

```
## CSI076 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
          Otu09043 Otu09044 Otu09045
                                                         Ot1109047 Ot1109048
                                            Ot:1109046
## CSI001
                  0
                            0
                                     0 0.000000e+00 0.00000e+00
                                                                          0
## CSI012
                  0
                            0
                                     0 0.000000e+00 0.00000e+00
                                                                          0
## CSI022
                  0
                            0
                                     0 0.000000e+00 0.00000e+00
                                                                          0
                  0
                            0
                                     0 0.000000e+00 0.00000e+00
                                                                          0
##
  CSI044
                            0
                                     0 0.000000e+00 0.00000e+00
  CSI055
                  0
## CSI065
                  0
                            0
                                     0 0.000000e+00 7.56401e-05
                                                                          0
##
  CSI076
                  0
                            0
                                     0 0.000000e+00 0.00000e+00
                             Otu09051 Otu09052 Otu09053 Otu09054 Otu09055
##
          Otu09049
                    Otu09050
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI012
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI022
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
                                                                  0
## CSI044
                  0
                                     0
                                               0
                                                         0
                                                                            0
  CSI055
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
##
  CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
##
   CSI076
                                                                  0
##
          Otu09056
                        Otu09057 Otu09058 Otu09059
                                                          Otu09060
                                                                        Otu09061
## CSI001
                                                   0 0.000000e+00 0.000000e+00
                  0 0.00000e+00
                                         0
##
  CSI012
                  0 0.00000e+00
                                         0
                                                   0 0.000000e+00 1.724971e-05
##
  CSI022
                  0 4.303111e-05
                                         0
                                                   0 0.000000e+00 4.303111e-05
   CSI044
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
                                         0
##
  CSI055
                  0 0.00000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI065
                  0 0.00000e+00
##
   CSI076
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
               Otu09062
                             Otu09063 Otu09064
                                                   Otu09065 Otu09066 Otu09067
##
   CSI001 2.345326e-05 2.345326e-05
                                              0 0.00000e+00
                                                                    0
                                                                              0
   CSI012 1.724971e-05 0.000000e+00
                                                                    0
                                                                              0
                                              0 0.00000e+00
   CSI022 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                    0
                                                                              0
   CSI044 0.000000e+00 0.000000e+00
                                              0 1.97157e-05
                                                                    0
                                                                              0
   CSI055 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                    0
                                                                              0
   CSI065 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                    0
                                                                              0
   CSI076 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                    0
                                                                              0
##
                             Otu09069 Otu09070 Otu09071 Otu09072 Otu09073
              Otu09068
   CSI001 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI012 3.449941e-05 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI022 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                 0
                                                                           0
   CSI044 0.000000e+00 0.000000e+00
                                              Λ
                                                       Λ
                                                                 0
                                                                           0
   CSI055 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI065 0.000000e+00 0.000000e+00
                                              0
                                                       Λ
                                                                           0
   CSI076 0.000000e+00 0.000000e+00
                                              0
##
          Otu09074
                        Otu09075 Otu09076 Otu09077 Otu09078
                                                                   0t_{11}09079
##
   CSI001
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 2.345326e-05
                                                   0
##
  CSI012
                  0 0.00000e+00
                                         0
                                                             0 0.00000e+00
  CSI022
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.00000e+00
  CSI044
                                         0
                                                   0
##
                  0 0.00000e+00
                                                             0 0.00000e+00
##
   CSI055
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.00000e+00
                                         0
                                                   0
##
   CSI065
                  0 0.000000e+00
                                                             0 0.00000e+00
##
   CST076
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
##
          Otu09080 Otu09081 Otu09082 Otu09083 Otu09084
                                                               Otu09085
## CSI001
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                            0
                                               0
## CSI012
                  0
                                     0
                                                         0 0.00000e+00
## CSI022
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
## CSI044
                  0
                            0
                                     0
                                               0
                                                        0 0.00000e+00
```

```
## CSI055
                  0
                            0
                                      0
                                                          0 0.00000e+00
  CSI065
                            0
                                                0
                                                          0 0.000000e+00
                  0
                                      0
   CSI076
##
                  0
                                      0
                                                0
                                                          0 0.00000e+00
##
               Otu09086
                             Otu09087 Otu09088 Otu09089 Otu09090 Otu09091
   CSI001 2.345326e-05 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI012 1.724971e-05 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI022 0.000000e+00 0.000000e+00
                                               0
                                                                   0
                                                         0
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI055 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
                                               0
                                                         Λ
                                                                   0
                                                                             0
   CSI065 0.000000e+00 0.000000e+00
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
           Otu09092 Otu09093 Otu09094 Otu09095 Otu09096 Otu09097
##
                                                                           Otu09098
##
   CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000000
## CSI012
                            0
                                      0
                                                0
                                                          0
                  0
                                                                    0 0.000000000
## CSI022
                  0
                            0
                                                0
                                                          0
                                                                    0 0.0000000000
                                      0
##
   CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000000
                  0
                            0
                                                0
                                                          0
##
   CSI055
                                      0
                                                                    0 0.000000000
##
   CSI065
                   0
                            0
                                                0
                                                          0
                                                                    0 0.000000000
                            0
                                                0
                                                                    0 0.0000000000
##
   CST076
                  0
                                      0
                                                          0
##
           Otu09099
                         Otu09100 Otu09101 Otu09102
                                                           Otu09103 Otu09104
##
  CSI001
                  0 2.345326e-05
                                          Λ
                                                     0 2.345326e-05
                                                                             0
## CSI012
                  0 0.000000e+00
                                           0
                                                     0 1.724971e-05
                                                                             0
## CSI022
                  0 0.000000e+00
                                          0
                                                     0 0.000000e+00
                                                                             0
                  0 0.000000e+00
                                           0
                                                     0 0.00000e+00
##
   CSI044
                                                                             0
                                           0
                                                                             0
##
   CSI055
                  0 0.00000e+00
                                                     0 0.00000e+00
   CSI065
                  0 0.000000e+00
                                          0
                                                     0 0.00000e+00
                                                                             0
   CSI076
                  0 0.00000e+00
                                          0
                                                     0 0.000000e+00
                                                                             0
##
           Otu09105 Otu09106 Otu09107 Otu09108 Otu09109 Otu09110 Otu09111
##
## CSI001
                                                0
                                                                    0
                  0
                            0
                                      0
                                                          0
                                                                              0
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0
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                                                                              0
## CSI022
                  0
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                                                                    0
                                                                              0
##
   CSI044
                  0
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##
   CSI055
                  0
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                                      0
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                                                                    0
                                                                              0
   CSI065
                            0
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                                                          0
                                                                    0
                                                                              0
##
                  0
                                      0
##
   CSI076
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
               Otu09112 Otu09113 Otu09114 Otu09115 Otu09116 Otu09117 Otu09118
## CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                   0
  CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                   0
   CSI022 0.000000e+00
                                 0
                                           0
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                                                               0
                                                                        0
                                                                                   0
  CSI044 0.000000e+00
                                 0
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                                                               0
                                                                        0
                                                                                   O
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
  CSI065 0.000000e+00
                                 0
                                          0
                                                     0
                                                              0
                                                                        0
                                                                                  0
                                 0
   CSI076 0.000000e+00
                                           0
                                                     0
                                                              0
                                                                                   0
           Otu09119 Otu09120 Otu09121 Otu09122 Otu09123 Otu09124
##
                                                                           Otu09125
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
## CSI012
                  0
                            0
                                                0
                                                          0
                                                                    0 0.000000e+00
                                      0
##
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                                                0
                                                          0
##
   CSI044
                  0
                            0
                                      0
                                                                    0 0.00000e+00
                                                                    0 0.000000e+00
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
##
   CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                            0
                                      0
                                                0
                                                          0
##
   CST076
                  0
                                                                    0 0.00000e+00
##
               Otu09126 Otu09127 Otu09128 Otu09129 Otu09130 Otu09131
## CSI001 0.000000000
                                 0
                                          0
                                                     0
                                                              0
                                                                        0
## CSI012 0.0000000000
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
```

```
## CSI022 0.0000000000
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
   CSI044 0.0000000000
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
   CSI055 0.0000000000
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI065 0.0000000000
                                  0
                                            0
                                                       0
                                                                           0
##
   CSI076 0.0000000000
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
##
                Otu09132 Otu09133 Otu09134 Otu09135
                                                        Otu09136 Otu09137
                                                                             Otu09138
  CSI001 0.000000e+00
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
                                                                                      0
## CSI012 0.000000e+00
                                                                                     0
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
   CSI022 0.000000e+00
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
                                                                                      0
                                  0
                                                                 0
                                                                                      0
   CSI044 0.000000e+00
                                            0
                                                       0
                                                                           0
   CSI055 0.000000e+00
                                  0
                                            0
                                                       0
                                                                 0
                                                                                      0
                                                                                     0
   CSI065 0.000000e+00
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
   CSI076 0.000000e+00
                                  0
                                            0
                                                       0
                                                                 0
                                                                           0
                                                                                      0
                                                                         0tu09145
##
           Otu09139 Otu09140 Otu09141 Otu09142 Otu09143 Otu09144
## CSI001
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
                   0
##
  CSI012
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
  CSI022
                   0
                             0
                                                            0
                                                                       0
                                                                                 0
##
                                        0
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   CSI044
                   0
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                                                                                 0
  CSI055
                   0
                             0
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                                                            0
                                                                       0
                                                                                 0
##
                                        0
##
  CSI065
                   0
                             0
                                        0
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                                                            0
                                                                       0
                                                                                 0
##
   CST076
                   Λ
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
##
           Otu09146
                     Otu09147
                                Otu09148 Otu09149 Otu09150 Otu09151
## CSI001
                             0
                                                            0
                                                                       0
                   0
                                        0
                                                  0
                                                                                 0
   CSI012
                             0
                                                  0
                                                            0
                                                                       0
                   0
                                        0
                                                                                 0
                                                            0
                                                                       0
## CSI022
                   0
                             0
                                        0
                                                  0
                                                                                 0
  CSI044
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
##
  CSI055
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
   CSI065
                   0
                             0
                                                  0
                                                            0
                                                                       0
                                                                                 0
##
                                        0
                             0
                                                  0
                                                            0
                                                                                 0
   CSI076
                   0
                                        0
##
##
           Otu09153 Otu09154
                                    Otu09155 Otu09156 Otu09157
                                                                        Otu09158
## CSI001
                   0
                             0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI012
                   0
                             0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI022
                   0
                               6.454667e-05
                                                       0
                                                                 0 0.00000e+00
                   0
                               0.000000e+00
                                                       0
                                                                 0 0.000000e+00
##
   CSI044
                             0
##
   CSI055
                   0
                                0.000000e+00
                                                       0
                                                                   0.000000e+00
   CSI065
                   0
                               0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
                             0
##
   CSI076
                   0
                             0 0.000000e+00
                                                       0
                                                                 0 2.890675e-05
##
           Otu09159
                     Otu09160
                                Otu09161 Otu09162 Otu09163
                                                                  Otu09164 Otu09165
## CSI001
                   0
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
                                                                                    0
  CSI012
                             0
                                                  0
                                                            0 0.00000e+00
                                                                                    0
##
                   0
                                        0
## CSI022
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
                                                                                    0
                   0
## CSI044
                   0
                             0
                                        0
                                                  0
                                                            0 7.88628e-05
                                                                                    0
   CSI055
                             0
                                                            0 0.00000e+00
##
                   0
                                        0
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                                                                                    0
                   0
                             0
                                        0
                                                  0
##
  CSI065
                                                            0 0.00000e+00
                                                                                    0
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
##
   CSI076
                     Otu09167
##
           Otu09166
                                Otu09168 Otu09169 Otu09170
                                                              Otu09171 Otu09172
## CSI001
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
   CSI012
                                                  0
                                                            0
                                                                       0
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##
                   0
                             0
                                        0
##
   CSI022
                   0
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                                                            0
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                                                                                 0
##
   CSI044
                   0
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                                        0
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                                                            0
                                                                       0
                                                                                 0
   CSI055
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
##
                                                                       0
## CSI065
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                                 0
## CSI076
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                       0
                                                                                 0
##
                Otu09173 Otu09174 Otu09175
                                                   Otu09176 Otu09177 Otu09178
```

```
## CSI001 0.000000e+00
                                           0 0.00000e+00
                                                                    0
                                                                               0
## CSI012 1.724971e-05
                                 0
                                           0 0.00000e+00
                                                                    0
                                                                               0
## CSI022 2.151556e-05
                                 0
                                           0 0.00000e+00
                                                                    0
                                                                               0
  CSI044 0.000000e+00
                                                                    0
                                 0
                                           0 0.000000e+00
                                                                               0
  CSI055 0.000000e+00
                                 0
                                           0 2.151417e-05
                                                                    0
                                                                               0
   CSI065 0.000000e+00
                                 0
                                           0 0.000000e+00
                                                                    0
                                                                               0
   CSI076 0.000000e+00
                                 0
                                           0 0.00000e+00
                                                                    0
           Otu09179 Otu09180 Otu09181 Otu09182 Otu09183 Otu09184 Otu09185
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                             0
                                                 0
                                                           0
                                                                     0
                   0
                                       0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI065
                             0
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                   0
                                       0
                                                                               0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu09186 Otu09187
                               Otu09188 Otu09189 Otu09190 Otu09191
                                                                       0tu09192
## CSI001
                             0
                                                           0
                   0
                                       0
                                                 0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI044
                   0
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                                       0
                                                 0
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                                                                     0
                                                                               0
## CSI055
                   0
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                                       0
                                                 0
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                                                                     0
                                                                               0
## CSI065
                             0
                                                                               0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
## CST076
                                                                     0
           Otu09193 Otu09194 Otu09195 Otu09196 Otu09197 Otu09198
                                                                            Otu09199
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 2.345326e-05
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
## CSI044
                             0
                                                 0
                                                           0
                                                                     0 0.000000e+00
                   0
                                       0
                                                 0
## CSI055
                   0
                             0
                                       0
                                                           0
                                                                     0 0.000000e+00
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
           Otu09200 Otu09201 Otu09202 Otu09203 Otu09204 Otu09205 Otu09206
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI055
                   0
                             0
                                                                               0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                     0
## CSI076
                                  Otu09209 Otu09210 Otu09211 Otu09212 Otu09213
##
           Otu09207 Otu09208
                             0 0.00000e+00
                                                    0
## CSI001
                   0
                                                               0
                                                                         0
## CSI012
                   0
                             0 0.00000e+00
                                                    0
                                                               0
                                                                         0
                                                                                   0
## CSI022
                             0 0.00000e+00
                   0
                                                    0
                                                               0
                                                                         0
                                                                                   0
                   0
                                                    0
                                                                         0
## CSI044
                             0 1.97157e-05
                                                               0
                                                                                   0
## CSI055
                             0 0.00000e+00
                                                    0
                                                                         0
                                                                                   0
## CSI065
                   0
                             0 0.00000e+00
                                                    0
                                                               0
                                                                         0
                                                                                   0
                                                    0
## CSI076
                   0
                             0 0.00000e+00
                                                                         0
           Otu09214 Otu09215 Otu09216 Otu09217 Otu09218
##
                                                                  Otu09219
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 2.151556e-05
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
```

```
## CSI076
                                     0
                                              0
                                                        0 0.00000e+00
##
               Otu09220 Otu09221 Otu09222 Otu09223 Otu09224 Otu09225 Otu09226
## CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
  CSI012 1.724971e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI044 3.943140e-05
                                0
                                         0
                                                   0
                                                             0
                                                                                O
                                                                      0
  CSI055 0.000000e+00
                                                             0
                                0
                                         0
## CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                0
## CSI076 0.000000e+00
                                0
                                                   0
                                                             0
                                                                      0
                                                                                O
                            Otu09228
##
               Otu09227
                                          Otu09229 Otu09230
                                                                  0tu09231
## CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
## CSI012 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.000000e+00
## CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.000000e+00
## CSI044 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 1.971570e-05
  CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 2 151417e-05
   CSI065 3.782005e-05 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
##
          Otu09232
                        Otu09233 Otu09234 Otu09235 Otu09236 Otu09237 Otu09238
## CST001
                  0 7.035977e-05
                                         0
                                                   0
                                                            0
                                                                                0
                                                                      0
## CSI012
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI022
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI044
                  0 0.000000e+00
                                         0
                                                             0
## CSI055
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                                0
## CSI065
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
## CSI076
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
          Otu09239 Otu09240
                                  Otu09241 Otu09242 Otu09243 Otu09244 Otu09245
## CSI001
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI012
                  0
                           0 0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI022
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI044
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                                0
## CSI055
                  0
                           0 0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI065
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI076
                  0
                           0 8.672024e-05
                                                   0
                                                             0
                                                                      0
##
          Otu09246 Otu09247
                                  Otu09248
                                                Otu09249 Otu09250 Otu09251
## CSI001
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
## CSI012
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
## CSI022
                           0 0.000000e+00 4.303111e-05
                                                                 0
                                                                           0
## CSI044
                  Ω
                           0 0.000000e+00 0.000000e+00
                                                                 Ω
                                                                           0
## CSI055
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
## CSI065
                  0
                           0 3.782005e-05 0.000000e+00
                                                                 0
                           0 0.000000e+00 0.000000e+00
   CST076
                                                                 0
          Otu09252 Otu09253 Otu09254 Otu09255 Otu09256 Otu09257
##
                                                                        0t_{11}09258
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
                           0
                                               0
                                                        0
## CSI012
                  0
                                     0
                                                                  0 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 2.151556e-05
## CSI044
                  0
                           0
                                                        0
                                     0
                                               0
                                                                  0 0.00000e+00
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
                                               0
                                                        0
## CSI065
                  0
                           0
                                     0
                                                                  0 0.00000e+00
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0.0.000000e+00
##
          Otu09259 Otu09260 Otu09261 Otu09262 Otu09263 Otu09264 Otu09265
## CSI001
                           0
                                     0
                                               0
                                                        0
                                                                            0
                  0
                                                                  0
                           0
                                                                  0
## CSI012
                  0
                                     0
                                               0
                                                        0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI044
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
```

```
## CSI055
                  0
                            0
                                                                             0
## CSI065
                            0
                                                         0
                                                                   0
                                                                             0
                  0
                                      0
                                               0
##
  CSI076
                  0
                            0
                                      0
                                               0
                                                         0
##
          Otu09266 Otu09267 Otu09268
                                            Otu09269 Otu09270
                                                                    Otu09271
## CSI001
                  0
                            0
                                      0 0.000000e+00
                                                             0 0.000000e+00
## CSI012
                            0
                  0
                                      0 0.00000e+00
                                                             0 1.724971e-05
                                                             0 0.00000e+00
## CSI022
                  0
                            0
                                      0 0.00000e+00
## CSI044
                  0
                            0
                                      0 0.00000e+00
                                                             0 0.00000e+00
##
   CSI055
                  0
                            0
                                      0 8.605667e-05
                                                             0 0.000000e+00
                            0
##
  CSI065
                  0
                                      0 0.000000e+00
                                                             0 0.00000e+00
   CSI076
                  0
                            0
                                      0 0.00000e+00
                                                             0 0.00000e+00
          Otu09272
                                                Otu09275
##
                         Otu09273 Otu09274
                                                               Otu09276
##
   CSI001
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
  CSI012
##
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
  CSI022
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
   CSI044
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                          0 0.000000e+00 2.151417e-05
##
   CSI055
                  0 0.00000e+00
   CSI065
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
   CST076
                  0 5.781349e-05
##
              Otu09277 Otu09278 Otu09279 Otu09280 Otu09281 Otu09282 Otu09283
##
  CSI001 0.00000e+00
                               Λ
                                         0
                                                   0
                                                            Ω
                                                                      0
                                                                                0
  CSI012 0.00000e+00
                               0
                                                   0
                                                                      0
                                                                                0
                                         0
## CSI022 0.00000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI044 7.88628e-05
                               0
                                                   0
                                         0
                                                            0
                                                                      0
                                                                                0
                               0
                                         0
                                                   0
  CSI055 0.00000e+00
                                                            0
                                                                      0
                                                                                0
   CSI065 0.00000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI076 0.00000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
          Otu09284 Otu09285 Otu09286 Otu09287
##
                                                      Otu09288
                                                               Otu09289
## CSI001
                  0
                            0
                                               0 0.000000e+00
                                      0
                                                                       0
## CSI012
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
## CSI022
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
##
   CSI044
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
   CSI055
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
  CSI065
                            0
##
                  0
                                      0
                                               0 0.00000e+00
                                                                       0
##
   CSI076
                  0
                            0
                                               0 0.00000e+00
                                                                       0
               Otu09290 Otu09291
##
                                      Otu09292 Otu09293 Otu09294 Otu09295
## CSI001 2.345326e-05
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
## CSI012 0.000000e+00
                                0 1.724971e-05
                                                        0
                                                                  0
                                                                            Λ
  CSI022 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
  CSI044 0.000000e+00
                                                                  0
                                                                            0
                                0 0.00000e+00
                                                        Ω
   CSI055 2.151417e-05
                                                                  0
                                0 0.00000e+00
                                                                            0
  CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                            0
          Otu09296 Otu09297 Otu09298 Otu09299 Otu09300 Otu09301 Otu09302
##
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI022
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI055
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI065
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
                  0
##
          Otu09303 Otu09304 Otu09305 Otu09306 Otu09307 Otu09308 Otu09309
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
```

```
## CSI022
                   0
                             0
                                       0
                                                                      0
                                                                                0
   CSI044
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
                                       0
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                             0
   CSI065
                   0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
           Otu09310 Otu09311 Otu09312
                                              Otu09313 Otu09314
                                                                      Otu09315
##
                                                                0 0.00000e+00
  CSI001
                   0
                             0
                                       0 2.345326e-05
## CSI012
                   0
                             0
                                       0
                                         0.000000e+00
                                                                0 0.00000e+00
##
   CSI022
                   0
                             0
                                         0.000000e+00
                                                                0 0.00000e+00
                             0
##
   CSI044
                   0
                                         0.00000e+00
                                                                0
                                                                  1.97157e-05
   CSI055
                   0
                             0
                                         0.000000e+00
                                                                  0.00000e+00
   CSI065
                   0
                             0
                                                                  0.00000e+00
##
                                         0.000000e+00
##
   CSI076
                   0
                             0
                                         0.000000e+00
                                                                0
                                                                  0.00000e+00
           Otu09316
                     Otu09317
##
                               Otu09318
                                              Otu09319 Otu09320
                                                                       Otu09321
##
  CSI001
                   0
                             0
                                       0 0.000000e+00
                                                                0 0.000000e+00
##
   CSI012
                   0
                             0
                                         0.000000e+00
                                                                  0.000000e+00
                             0
                                                                0 0.000000e+00
##
   CSI022
                   0
                                         0.000000e+00
   CSI044
                   0
                             0
                                         0.000000e+00
                                                                  0.000000e+00
   CSI055
                   0
                             0
                                                                  0.000000e+00
##
                                         0.000000e+00
##
   CSI065
                   0
                             0
                                         3.782005e-05
                                                                  0.000000e+00
##
   CST076
                   Λ
                             0
                                       0 0.000000e+00
                                                                0 0.000000e+00
##
           Otu09322
                         Otu09323 Otu09324 Otu09325
                                                            Otu09326 Otu09327
## CSI001
                                           0
                                                      0 2.345326e-05
                                                                               0
                   0.000000e+00
   CSI012
                     0.000000e+00
                                           0
                                                        0.000000e+00
                                                                               0
##
                                           0
                                                                               0
##
   CSI022
                     0.000000e+00
                                                        0.000000e+00
   CSI044
                     0.000000e+00
                                           0
                                                        0.000000e+00
                                                                               0
   CSI055
                     0.000000e+00
                                           0
                                                        0.000000e+00
                                                                               0
##
                     0.000000e+00
                                           0
                                                        0.000000e+00
                                                                               0
##
   CSI065
                                                                               0
   CSI076
                   0 8.672024e-05
                                           0
                                                      0 0.00000e+00
##
##
           Otu09328
                     Otu09329 Otu09330 Otu09331 Otu09332
                                                                  Otu09333 Otu09334
##
   CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
                   0
                             0
                                                 0
                                                                                    0
##
   CSI044
                                       0
                                                           0 0.00000e+00
   CSI055
                   0
                             0
                                       0
                                                 0
                                                             0.000000e+00
                                                                                    0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
           Otu09335
                        Otu09336 Otu09337 Otu09338 Otu09339 Otu09340 Otu09341
   CSI001
                   0
                     0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
                     0.00000e+00
   CSI012
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI022
                     0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                           0
   CSI044
                     0.00000e+00
                                          0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
                   0
                                                     0
##
   CSI055
                     6.45425e-05
                                           0
                                                               0
                                                                         0
                                                                                   0
                     0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI065
                   0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI076
                                                                  Otu09347
           Otu09342
                     Otu09343 Otu09344
                                              Otu09345
                                                        Otu09346
                                                                            Otu09348
##
##
   CSI001
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
   CSI012
                                                                0
                                                                          0
                                                                                    0
##
                   0
                             0
                                         0.000000e+00
##
   CSI022
                   0
                             0
                                         2.151556e-05
                                                                0
                                                                          0
                                                                                    0
##
   CSI044
                   0
                             0
                                         0.000000e+00
                                                                0
                                                                          0
                                                                                    0
   CSI055
                   0
                             0
                                         0.000000e+00
                                                                0
                                                                          0
                                                                                    0
##
                                                                                    0
##
   CSI065
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                       0 0.000000e+00
##
  CSI076
                   0
                             0
                                                                0
                                                                          0
                                                                                    0
##
           Otu09349 Otu09350 Otu09351
                                              Otu09352
                                                            Otu09353
                                                                           0tu09354
```

```
## CSI001
                             0
                                       0 0.000000e+00 0.000000e+00 2.345326e-05
## CSI012
                   0
                             0
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI022
                   0
                             0
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
                             0
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI044
                   0
## CSI055
                   0
                             0
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI065
                             0
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
                   0
                             0
                                       0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI076
           Otu09355 Otu09356 Otu09357 Otu09358 Otu09359 Otu09360 Otu09361
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                                       0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
  CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
                                                 0
                                                                     0
## CSI065
                   0
                                       0
                                                           0
                                                                               0
##
  CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu09362 Otu09363 Otu09364 Otu09365 Otu09366 Otu09367
                                                                       Otu09368
## CSI001
                                                           0
                   0
                             0
                                       0
                                                 0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
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                                                                               0
## CSI022
                   0
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                                       0
                                                 0
## CSI044
                   0
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                                                 0
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                                                                     0
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##
  CSI055
                   0
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                                                                               0
## CSI065
                   0
                             0
                                                 0
                                                                     0
                                                                               0
## CSI076
                             0
                                                           0
                                                                     0
                                                                               0
                   \cap
                                       0
                                                 0
           Otu09369
                         Otu09370
                                       Otu09371
                                                     Otu09372 Otu09373 Otu09374
##
## CSI001
                   0 0.000000e+00 0.00000e+00 0.000000e+00
  CSI012
                   0 0.000000e+00 0.00000e+00 0.000000e+00
                                                                       0
                                                                                 0
## CSI022
                   0 0.000000e+00 0.00000e+00 0.000000e+00
                                                                       0
                                                                                 0
                   0 3.943140e-05 0.00000e+00 0.000000e+00
                                                                       0
                                                                                 0
##
   CSI044
                                                                       0
  CSI055
                   0 0.000000e+00 0.00000e+00 0.000000e+00
                                                                                 0
##
                   0 3.782005e-05 0.00000e+00 0.000000e+00
## CSI065
                                                                       0
                                                                                 0
##
  CSI076
                   0 0.000000e+00 0.00000e+00 0.000000e+00
                                                                       0
                                                                                 0
##
           Otu09375 Otu09376 Otu09377 Otu09378 Otu09379 Otu09380 Otu09381
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                                 0
                                                           0
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                                                                               0
                                       0
## CSI055
                   0
                             0
                                                           0
                                                                     0
                                                                               0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                               0
## CSI076
##
           Otu09382 Otu09383 Otu09384 Otu09385 Otu09386
                                                                  Otu09387 Otu09388
                                                           0 0.000000e+00
## CSI001
                   0
                             0
                                       0
                                                 0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 6.454667e-05
                                                                                    0
                             0
                                                 0
                                                                                    0
## CSI044
                   0
                                       0
                                                           0 0.000000e+00
## CSI055
                             0
                                                           0 0.000000e+00
                   0
                                       0
                                                 0
                                                                                    0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
  CSI076
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
##
           Otu09389 Otu09390 Otu09391 Otu09392 Otu09393 Otu09394 Otu09395
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
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                                                                               0
## CSI022
                   0
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## CSI044
                   0
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                                                                               0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                                               0
```

##	CSI076	0	0	0	0	0	0	0
##		Otu09396	Otu09397	Otu09398	Otu09399	Otu09400	Otu09401	Otu09402
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	aa too a	Otu09403		Otu09405		Otu09407		Otu09409
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022 CSI044	0	0	0	0	0	0	0
##	CS1044 CS1055	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	ODIOTO	Otu09410	·	Otu09412	ū	Otu09414	Otu09415	Otu09416
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu09	9417 Otu09	9418 Otu09	9419 Otu09	9420 Otu09	9421 Otu09	9422
##	CSI001	0.0000006	e+00	0	0	0	0	0
##	CSI012	0.0000006	e+00	0	0	0	0	0
##		0.0000006		0	0	0	0	0
##		0.0000006		0	0	0	0	0
##		0.0000006		0	0	0	0	0
##		0.0000006		0	0	0	0	0
##	CS1076	0.0000006		0	0	0	0	0
##	CCT 001		9423 Otu09	_		tu09426	Otu0942	
##		0.0000000			000e+00 000e+00		. 000000000 . 000000000	
##		0.0000000			000e+00 000e+00		. 000000000	
##		0.0000000			000e+00 000e+00		.000000000	
		0.0000000			425e-05		.000000000	
		0.0001134			000e+00		.000113460	
##		0.0000000			000e+00		.000000000	
##							Otu09434	
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##					Otu09439			9441 Otu09442
	CSI001	0	0	0	0		0.0000006	
	CSI012	0	0	0	0		3.4499416	
	CSI022	0	0	0	0		0.0000006	
##	CSI044	0	0	0	0	0	0.0000006	9+00 0

```
## CSI055
                            0
                                      0
                                               0
                                                         0 0.00000e+00
## CSI065
                            0
                                               0
                                                         0 0.000000e+00
                                                                                 0
                  0
                                      0
## CSI076
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                  0
                         Otu09444 Otu09445 Otu09446 Otu09447
##
          Otu09443
                                                                    Otu09448
## CST001
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
## CSI012
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
## CSI022
                                                    0
## CSI044
                  0 0.000000e+00
                                          0
                                                              0 0.00000e+00
## CSI055
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
                                          0
                                                    0
## CSI065
                  0 0.000000e+00
                                                              0 0.00000e+00
  CSI076
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
          Otu09449 Otu09450 Otu09451 Otu09452 Otu09453 Otu09454 Otu09455
##
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI012
                            0
                                      0
                                                0
                                                         0
                                                                   0
                  0
                                                                             0
## CSI022
                  0
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                                      0
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                                                0
## CSI044
                  0
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## CSI055
                                                                   0
                                                                             0
## CSI065
                            0
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                                                         0
##
  CST076
                  0
                                      0
                                                                   0
                                                                             0
          Otu09456 Otu09457 Otu09458 Otu09459 Otu09460 Otu09461 Otu09462
## CSI001
                  Λ
                            Λ
                                      0
                                                \cap
                                                         Λ
                                                                   Ω
                                                                             0
## CSI012
                            0
                                      0
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                                                                             0
## CSI022
                  0
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                                      0
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                                                                   0
                                                                             0
## CSI044
                  0
                            0
                                                0
                                                          0
                                      0
                                                                             0
                  Ω
                            0
                                                0
                                                          0
                                                                   0
## CSI055
                                      0
                                                                             0
## CSI065
                  0
                            0
                                      0
                                                0
                                                                             0
## CSI076
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
               Otu09463 Otu09464 Otu09465 Otu09466 Otu09467 Otu09468 Otu09469
## CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
## CSI012 0.000000e+00
                                0
                                          0
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                                                              0
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                                                                                  0
## CSI022 0.000000e+00
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                                          0
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## CSI044 0.000000e+00
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## CSI055 0.000000e+00
                                          0
                                                    0
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## CSI065 0.000000e+00
                                0
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                                                                                  0
## CSI076 0.000000e+00
                                0
                                          0
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                                                                        0
          Otu09470 Otu09471 Otu09472 Otu09473 Otu09474 Otu09475 Otu09476
## CSI001
                  0
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                                                         0
## CSI012
                  Λ
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## CSI022
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## CSI044
                  Ω
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                                                                             0
## CSI055
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## CSI065
                  0
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                                                0
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                            0
                                                         0
   CSI076
                  0
                                      0
                                                0
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          Otu09477 Otu09478 Otu09479
                                           Otu09480 Otu09481 Otu09482 Otu09483
##
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
## CSI001
                  0
## CSI012
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                                                                                0
## CSI022
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                                                                                0
                  0
                            0
                                                             0
## CSI044
                                      0 0.00000e+00
                                                                       0
                                      0 6.45425e-05
## CSI055
                  0
                            0
                                                             0
                                                                       0
                                                                                0
## CSI065
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
## CST076
          Otu09484 Otu09485 Otu09486
                                           Otu09487 Otu09488 Otu09489 Otu09490
## CSI001
                  0
                            0
                                      0 4.690652e-05
                                                              0
                                                                        0
                                                                                  0
## CSI012
                  0
                            0
                                     0 0.000000e+00
                                                              0
                                                                       0
                                                                                  0
```

```
## CSI022
                   0
                             0
                                      0 0.00000e+00
                                                               0
                                                                         0
## CSI044
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
  CSI055
                   0
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                                       0 0.000000e+00
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  CSI065
                                                               0
                   0
                             0
                                        0.000000e+00
                                                                         0
##
##
   CST076
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
           Otu09491
                         Otu09492 Otu09493 Otu09494 Otu09495 Otu09496 Otu09497
##
## CSI001
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
## CSI012
                   0 0.00000e+00
                                           0
                                                     0
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                                                                         0
##
   CSI022
                   0 0.000000e+00
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##
   CSI044
                   0 0.000000e+00
                                                               0
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   CSI055
                   0 4.302833e-05
                                           0
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                                           0
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                                                                         0
##
   CSI065
                   0 0.00000e+00
##
   CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
           Otu09498 Otu09499 Otu09500 Otu09501 Otu09502 Otu09503 Otu09504
##
## CSI001
                   0
                             0
                                      0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI012
                   0
                             0
                                       0
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                                                                               0
                   0
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                                                                     0
                                                                               0
##
   CSI022
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##
   CSI044
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   CSI055
                   0
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##
                                       0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CST076
                   0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
               Otu09505
                              Otu09506 Otu09507 Otu09508 Otu09509 Otu09510
  CSI001 0.000000e+00 0.000000e+00
                                               0
                                                                    0
                                                         0
                                                                              0
   CSI012 0.000000e+00 1.724971e-05
                                               0
                                                                    0
                                                         0
                                                                              0
                                                                    0
                                                                              0
   CSI022 0.000000e+00 0.000000e+00
                                               0
                                                         0
   CSI044 0.000000e+00 0.000000e+00
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                                                                    0
                                                                              0
   CSI055 0.000000e+00 0.000000e+00
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                                                                              0
                                                0
                                                                    0
   CSI065 0.000000e+00 0.000000e+00
                                                         0
                                                                              0
                                               0
                                                                    0
   CSI076 0.000000e+00 0.000000e+00
                                                                              0
##
##
               Otu09511 Otu09512 Otu09513 Otu09514
                                                            Otu09515 Otu09516
##
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0 1.724971e-05
                                                                              0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
   CSI044 0.000000e+00
                                 0
                                           0
                                                                              0
                                                     0 0.00000e+00
   CSI055 0.000000e+00
                                 0
                                           0
                                                       0.000000e+00
                                                                              0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
##
##
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
##
           Otu09517 Otu09518 Otu09519 Otu09520 Otu09521 Otu09522 Otu09523
## CSI001
                             0
                                      0
                                                 0
                                                           0
                                                                     0
                   0
                                                                               0
  CSI012
                             0
                                                 0
                                                           0
                                                                     0
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##
                   0
                                      0
   CSI022
                             0
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                                       0
  CSI044
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##
                                                 0
##
   CSI055
                   0
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                                                 0
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                                                                               0
##
   CSI065
                   Λ
                             0
                                       0
                                                 0
                                                           0
##
   CSI076
                                                                               0
              Otu09524 Otu09525 Otu09526 Otu09527 Otu09528
##
                                                                     Otu09529
   CSI001 0.00000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
                                                    0
   CSI012 0.00000e+00
                                0
                                          0
                                                              0 0.000000e+00
   CSI022 0.00000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
   CSI044 0.00000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
   CSI055 6.45425e-05
                                0
                                                    0
                                          0
                                                              0.0.000000e+00
   CSI065 0.00000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
##
  CSI076 0.00000e+00
                                0
                                          0
                                                    0
                                                              0.0.000000e+00
##
           Otu09530 Otu09531 Otu09532 Otu09533 Otu09534 Otu09535 Otu09536
```

					_	_			_
	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0
##	CSI022	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI055	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0		0
##		Otu09537	Otu09538	Otu09539	Otu09540	Otu09541	Otu09542		9543
##	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0	)	0
##	CSI022	0	0	0	0	0	0	)	0
##	CSI044	0	0	0	0	0	0	)	0
##	CSI055	0	0	0	0	0	0	)	0
##	CSI065	0	0	0	0	0	0	)	0
##	CSI076	0	0	0	0	0	0		0
##		Otu09544	Otu09545	Otu09546	Otu09547	Otu09548	Otu0	9549	Otu09550
##	CSI001	0	0	0	0	0	0.000000	e+00	0
##	CSI012	0	0	0	0	0	0.000000	e+00	0
##	CSI022	0	0	0	0	0	0.000000	e+00	0
##	CSI044	0	0	0	0	0	0.000000	e+00	0
##	CSI055	0	0	0	0	0	0.000000	e+00	0
##	CSI065	0	0	0	0	0	3.782005	e-05	0
##	CSI076	0	0	0	0	0	0.000000	e+00	0
##		Otu09551	Otu09552	Otu09553	Otu09!	554 Otu095	555 Otu09	556 C	tu09557
##	CSI001	0	0	0	0.00000e	+00	0	0	0
##	CSI012	0	0	0	0.00000e	+00	0	0	0
##	CSI022	0	0	0	0.00000e	+00	0	0	0
##	CSI044	0	0	0	0.00000e	+00	0	0	0
##	CSI055	0	0	0	6.45425e	-05	0	0	0
##	CSI065	0	0	0	0.00000e	+00	0	0	0
##	CSI076	0	0	0	0.00000e	+00	0	0	0
##		Otu09	9558 Otu09	9559 Otu09	9560 Otu09	9561 Otu09	9562 Otu0	9563	Otu09564
##	CSI001	0.0000006	e+00	0	0	0	0	0	0
##	CSI012	3.4499416	e-05	0	0	0	0	0	0
##	CSI022	0.0000006	e+00	0	0	0	0	0	0
##	CSI044	0.0000006	e+00	0	0	0	0	0	0
##	CSI055	0.0000006	e+00	0	0	0	0	0	0
##	CSI065	0.0000006	e+00	0	0	0	0	0	0
##	CSI076	0.0000006	e+00	0	0	0	0	0	0
##		Otu09565	Otu09566	Otu09567	Otu09568	Otu09569	Otu09570	)	Otu09571
##	CSI001	0	0	0	0	0	0	0.00	00000000
##	CSI012	0	0	0	0	0	0	0.00	00000000
##	CSI022	0	0	0	0	0	0	0.00	00000000
##	CSI044	0	0	0	0	0	0	0.00	00000000
##	CSI055	0	0	0	0	0	0	0.00	00000000
##	CSI065	0	0	0	0	0	0	0.00	01134602
##	CSI076	0	0	0	0	0	0	0.00	00000000
##		Otu09572	Otu09573	Otu09574	Otu09575	Otu09			Otu09578
##	CSI001	0	0	0	0	0.0000006	e+00	0	0
##	CSI012	0	0	0	0	0.0000006		0	0
##	CSI022	0	0	0	0	0.0000006		0	0
##	CSI044	0	0	0	0	0.0000006		0	0
##	CSI055	0	0	0	0	0.0000006		0	0
	CSI065	0	0	0	0	0.0000006		0	0

```
## CSI076
                  0
                           0
                                     0
                                               0 0.000000e+00
##
          Otu09579 Otu09580 Otu09581 Otu09582 Otu09583 Otu09584 Otu09585
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI012
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI044
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI055
                            0
                                                                            0
## CSI065
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI076
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
          Otu09586 Otu09587 Otu09588 Otu09589 Otu09590 Otu09591 Otu09592
##
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI044
                           0
                                               0
                  0
                                     0
                                                         0
                                                                            0
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI076
          Otu09593 Otu09594 Otu09595 Otu09596
                                                     Otu09597 Otu09598 Otu09599
                                               0 0.000000e+00
## CSI001
                  0
                           0
                                     0
                                                                      0
                                                                                0
## CSI012
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
## CSI022
                  0
                           0
                                     Ω
                                               0 0.000000e+00
                                                                      0
                                                                                0
## CSI044
                           0
                                               0 0.000000e+00
## CSI055
                  0
                           0
                                     0
                                                                      0
                                                                                0
                                               0 0.00000e+00
## CSI065
                  0
                           0
                                     0
                                               0 0.000000e+00
                            Λ
## CSI076
                  0
                                     0
                                               0 0.000000e+00
                                                                      0
              Otu09600 Otu09601 Otu09602 Otu09603 Otu09604 Otu09605
## CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                0
                                         0
                                                             0
                                                                      0
## CSI012 1.724971e-05
                                                   0
                                                             0
## CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                                      0
## CSI044 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI055 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
  CSI065 0.000000e+00
                                         0
                                                   0
                                                             0
   CSI076 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
              Otu09606 Otu09607 Otu09608
##
                                                Otu09609 Otu09610 Otu09611
## CSI001 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
## CSI012 0.000000e+00
                                0
                                         0 1.724971e-05
                                                                 0
                                                                           0
## CSI022 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
## CSI044 0.000000e+00
                                Λ
                                         0 0.000000e+00
                                                                 0
                                                                           0
## CSI055 0.000000e+00
                                0
                                         0 0.000000e+00
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                                                                 0
## CSI065 0.000000e+00
                                0
                                         0 0.000000e+00
## CSI076 0.000000e+00
                                0
                                         0 0.000000e+00
##
          Otu09612 Otu09613 Otu09614 Otu09615
                                                    Otu09616 Otu09617 Otu09618
                           0
## CSI001
                  0
                                     0
                                               0 0.000000e+00
                                                                      0
                  0
                           0
                                     0
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## CSI012
                                               0 0.00000e+00
## CSI022
                           0
                  0
                                     0
                                               0 0.00000e+00
                                                                                0
## CSI044
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                                                                                0
## CSI055
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                                                                                0
                  0
                            0
                                     0
## CSI065
                                              0 0.000000e+00
                                                                                0
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                                0
          Otu09619 Otu09620 Otu09621
                                          Otu09622 Otu09623
                                                                   Otu09624
## CSI001
                  0
                           0
                                     0 0.000000e+00
                                                             0 0.000000e+00
                           0
## CSI012
                  0
                                     0 0.00000e+00
                                                             0 0.000000e+00
## CSI022
                  0
                           0
                                     0 0.000000e+00
                                                             0 2.151556e-05
                           0
## CSI044
                  0
                                    0 0.000000e+00
                                                             0 0.000000e+00
```

```
## CSI055
                  0
                            0
                                      0 2.151417e-05
                                                              0 0.00000e+00
  CSI065
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.000000e+00
##
   CSI076
##
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.000000e+00
##
           Otu09625 Otu09626 Otu09627 Otu09628
                                                       Otu09629
                                                                Otu09630 Otu09631
##
  CSI001
                  0
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                                      0
                                                0 0.000000e+00
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  CSI012
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##
                                                0 0.00000e+00
## CSI022
                            0
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                                                0 0.00000e+00
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## CSI044
                  0
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                                                0 0.00000e+00
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##
   CSI055
                  0
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                                                0 0.00000e+00
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                            0
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                                                                                  0
##
   CSI065
                  0
                                      0
                                                0 0.00000e+00
   CSI076
                  0
                            0
                                                0 0.00000e+00
                                                                                  0
                         Otu09633 Otu09634 Otu09635 Otu09636 Otu09637
##
           Otu09632
                                                                          Otu09638
##
   CSI001
                  0 0.000000e+00
                                          0
                                                     0
                                                              0
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                                                                                  0
   CSI012
                                           0
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##
                  0 0.00000e+00
   CSI022
                  0 0.000000e+00
                                           0
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##
##
   CSI044
                  0 0.00000e+00
                                           0
                                                     0
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##
   CSI055
                  0 0.00000e+00
                                                                        0
   CSI065
                  0 0.000000e+00
                                           0
                                                     0
                                                              0
                                                                                  0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
##
   CST076
                  0.000000e+00
##
              Otu09639
                            Otu09640 Otu09641 Otu09642 Otu09643 Otu09644
##
   CSI001 0.00000e+00 0.000000e+00
                                              \cap
                                                        0
                                                                  0
                                                                            0
   CSI012 0.00000e+00 5.174912e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI022 0.00000e+00 0.000000e+00
                                              0
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   CSI044 0.00000e+00 0.000000e+00
                                              0
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                                                                  0
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                                              0
   CSI055 6.45425e-05 0.000000e+00
                                                        0
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   CSI065 0.00000e+00 0.000000e+00
                                              0
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                                                                            0
##
   CSI076 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            Λ
                             Otu09646 Otu09647
                                                 Otu09648 Otu09649
               Otu09645
                                                                     Otu09650
##
   CSI001 0.000000e+00 0.000000e+00
                                               0
                                                         0
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                                                                             0
   CSI012 0.000000e+00 0.000000e+00
                                               0
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                                                                             0
   CSI022 0.000000e+00 0.000000e+00
                                               0
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                                                                   0
                                                                             0
   CSI044 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI055 2.151417e-05 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI065 0.000000e+00 0.000000e+00
                                               0
                                                                   0
                                                                             0
                                                         0
   CSI076 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
##
##
           Otu09651
                         Otu09652 Otu09653 Otu09654 Otu09655 Otu09656 Otu09657
## CSI001
                  0 0.00000e+00
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
## CSI012
                  0 0.000000e+00
                                           0
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## CSI022
                  0 0.000000e+00
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                  0 0.000000e+00
                                           0
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                                                              Λ
                                                                        0
                                                                                  O
## CSI044
                                           0
                                                     0
                                                              0
                                                                                  0
   CSI055
                  0 0.000000e+00
   CSI065
                  0 0.00000e+00
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
##
                                                              0
##
   CST076
                  0 0.00000e+00
                                                     0
                                                                        0
                                                                                  0
           Otu09658 Otu09659 Otu09660
                                             Otu09661 Otu09662
                                                                Otu09663
##
                                                                          Otu09664
## CSI001
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
## CSI012
                  0
                            0
                                      0 0.000000e+00
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##
   CSI022
                  0
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                                      0 0.000000e+00
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                  0
                            0
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                                                                        0
                                                                                  0
##
   CSI044
                                        0.000000e+00
##
   CSI055
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI065
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
##
           Otu09665 Otu09666 Otu09667
                                             Otu09668 Otu09669
                                                                     Otu09670
## CSI001
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.000000e+00
## CSI012
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.00000e+00
```

```
## CSI022
                                       0 0.00000e+00
                                                                0 0.00000e+00
## CSI044
                   0
                             0
                                       0 0.000000e+00
                                                                0 0.00000e+00
## CSI055
                   0
                             0
                                       0 0.00000e+00
                                                                0 0.00000e+00
                             0
                                         0.000000e+00
##
  CSI065
                   0
                                                                0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0 0.000000e+00
                                                                0 0.000000e+00
           Otu09671 Otu09672 Otu09673 Otu09674 Otu09675 Otu09676 Otu09677
##
                                                            0
## CSI001
                   0
                             0
                                       0
                                                  0
                                                                      0
                                                                                0
## CSI012
                                                            0
                                                                      0
                   0
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                                       0
                                                  0
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##
  CSI022
                   0
                             0
                                        0
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                                                            0
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                             0
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                                                            0
                                                                      0
## CSI044
                   0
                                        0
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   CSI055
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                                                                      0
                                                                                0
   CSI065
                   0
                             0
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                                                                      0
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##
##
   CSI076
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
           Otu09678 Otu09679 Otu09680 Otu09681
                                                        Otu09682 Otu09683 Otu09684
##
## CSI001
                   0
                             0
                                       0
                                                  0 0.000000e+00
                                                                           0
                                                                                     0
##
   CSI012
                   0
                             0
                                        0
                                                  0 0.00000e+00
                                                                           0
                                                                                     0
   CSI022
                   0
                             0
                                                  0 0.000000e+00
                                                                                     0
##
                                       0
                                                                           0
##
   CSI044
                   0
                             0
                                        0
                                                  0 0.00000e+00
                                                                                     0
                                                  0 0.000000e+00
  CSI055
                   0
                             0
                                       0
                                                                           0
                                                                                     0
##
## CSI065
                   0
                             0
                                        0
                                                  0 0.00000e+00
                                                                           0
                                                                                     0
##
   CST076
                   0
                             0
                                       0
                                                  0 0.00000e+00
                                                                           0
                                                                                     O
##
           Otu09685
                     Otu09686 Otu09687 Otu09688 Otu09689 Otu09690 Otu09691
## CSI001
                             0
                                                  0
                                                            0
                                                                      0
                   0
                                       0
                                                                                0
  CSI012
                   0
                             0
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                                                            0
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                                                                                0
                                       0
                                                                      0
## CSI022
                   0
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                                       0
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  CSI044
                   0
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                                                            0
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##
  CSI055
                   0
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   CSI065
                   0
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##
                                        0
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   CSI076
                   0
                                       0
                                                            0
                                                                      0
##
           Otu09692 Otu09693 Otu09694 Otu09695 Otu09696
##
                                                                  Otu09697 Otu09698
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0 0.00000e+00
##
   CSI012
                   0
                             0
                                       0
                                                  0
                                                            0 0.00000e+00
                                                                                    0
##
   CSI022
                   0
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
                                                                                    0
  CSI044
                   0
                             0
                                                  0
                                                            0 5.91471e-05
##
                                       0
                                                                                    0
##
  CSI055
                   0
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
##
  CSI065
                   0
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
                                                                                    0
##
   CSI076
                             0
                                        0
                                                  0
                                                            0 0.00000e+00
##
           Otu09699
                     Otu09700
                               Otu09701 Otu09702 Otu09703 Otu09704 Otu09705
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI012
                             0
                                       0
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                                                                                0
                   0
## CSI022
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## CSI044
                   0
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  CSI055
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                                                                      0
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##
  CSI065
   CSI076
                             0
                                        0
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                                                            0
                                                                                0
##
                     Otu09707
                               Otu09708 Otu09709 Otu09710 Otu09711
                                                                            Otu09712
##
           Otu09706
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
   CSI012
                                                            0
##
                   0
                             0
                                       0
                                                  0
                                                                      0 0.00000e+00
  CSI022
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
##
  CSI044
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                      0 1.97157e-05
##
   CSI055
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                      0 0.00000e+00
## CSI065
                   0
                             0
                                        0
                                                  0
                                                                      0 0.00000e+00
## CSI076
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
##
           Otu09713 Otu09714 Otu09715 Otu09716 Otu09717
                                                                  Otu09718 Otu09719
```

##	CSI001	0	0	0	0	0	0.0000006		0
##	CSI012	0	0	0	0	0	0.0000006		0
##	CSI022	0	0	0	0	0	2.151556	e-05	0
##	CSI044	0	0	0	0	0	0.0000006	9+00	0
##	CSI055	0	0	0	0	0	0.0000006	e+00	0
##	CSI065	0	0	0	0	0	0.0000006	e+00	0
##	CSI076	0	0	0	0	0	0.0000006	e+00	0
##		Otu09720	Otu09721	Otu09722	Otu09723	Otu09724	Otu09725	Otu09726	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu09727	OtuOs	9728 Otu09	9729 Otu09	9730 Otu09	9731 Otu09	9732 Otu09	733
##	CSI001	0	0.0000006		0	0	0	0	0
##	CSI012	0	0.0000006		0	0	0	0	0
##	CSI022	0	4.3031116		0	0	0	0	0
##	CSI044	0	0.0000006		0	0	0	0	0
##	CSI055	0	0.0000006		0	0	0	0	0
##	CSI065	0	0.0000006		0	0	0	0	0
##	CSI076	0	0.0000000		0	0	0	0	0
##	ODIOTO	-	Otu09735		-	-	-	Otu09740	O
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##	CDIOIO	Otu09741	Otu09742	-	Otu09744	Otu09745		Otu09747	
##	CSI001	00003741	00003742	00009743	00003744	00003743	0.009140	00003141	
##	CSI001								
		0	0	0	0	0	0	0	
##	CSI022 CSI044	0	0	0	0	0	0	0	
	CS1044 CS1055	0	0	0	0	0	0	0	
##		0	0	0	0	0	0	0	
	CSI065	0	0	0	0	0	0	0	
	CSI076	0	0	0	0+00751	0	0+00753	0	
##	GGT001		Otu09749						
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055	0	0	0	0	0	0	0	
	CSI065	0	0	0	0	0	0	0	
	CSI076	0	0	0	0	0	0	0	
##			Otu09756						
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	

##	CSI076	0	0		0		0		0		0		0
##		Otu09762	Otu09	9763	Otu09	9764	Otu09	9765	Otu09	766	Otu097	67	Otu09768
##	CSI001	0	0.0000006	e+00		0		0		0		0	0
##	CSI012	0	0.0000006	e+00		0		0		0		0	0
##	CSI022	0	0.0000006	e+00		0		0		0		0	0
##	CSI044	0	0.0000006	e+00		0		0		0		0	0
##	CSI055	0	0.0000006	e+00		0		0		0		0	0
##	CSI065	0	0.0000006	e+00		0		0		0		0	0
##	CSI076	0	0.0000006	e+00		0		0		0		0	0
##		Otu09769	Otu097	770 (	)tu097	771 (	)tu097	772 (	)tu097	73 (	)tu0977	'4 C	tu09775
##	CSI001	0	0.00000e+	+00		0		0		0		0	0
##	CSI012	0	0.00000e	+00		0		0		0		0	0
##	CSI022	0	0.00000e	+00		0		0		0		0	0
##	CSI044	0	0.00000e	+00		0		0		0		0	0
##	CSI055	0	6.45425e-	-05		0		0		0		0	0
##	CSI065	0	0.00000e	+00		0		0		0		0	0
##	CSI076	0	0.00000e	+00		0		0		0		0	0
##		Otu09776	Otu09777		Otu09	9778	Otu09	9779	Otu09	780	Otu097	'81	Otu09782
##	CSI001	0	0	2.34	45326	e-05		0		0		0	0
##	CSI012	0	0	0.00	00000	e+00		0		0		0	0
##	CSI022	0	0		00000			0		0		0	0
##	CSI044	0	0	0.00	00000	e+00		0		0		0	0
##	CSI055	0	0		00000			0		0		0	0
##	CSI065	0	0		00000			0		0		0	0
##	CSI076	0			00000			0		0		0	0
##			9783 Otu09		Otu09	9785	Otu09		0tu09		Otu097		Otu09789
##		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##	CS1076	0.0000006		0	00700	0		0	20704	0	20705 6	0	0
##	<b>GGT004</b>		Otu09791	Utu(		Utu(		Utu(		Jtu(		)tu(	9796
##	CSI001	0	0		0		0		0		0		0
##	CSI012	0	0		0		0		0		0		0
##	CSI022	0	0		0		0		0		0		0
	CSI044	0	0		0		0		0		0		0
	CSI055 CSI065	0	0		0		0		0		0		0
##	CS1005	0	0		0		0		0		0		0
##	CSIUIO		Otu09798	Ω±11(	-	Ω±110	-		-	2∩1	-	202	Otu09803
	CSI001	0	0	ocu	0	ocuc		0 00	00000e		00000	0	0
	CSI012	0	0		0				00000e			0	0
	CSI022	0	0		0				00000e			0	0
##	CSI044	0	0		0				00000e			0	0
	CSI055	0	0		0				00000e			0	0
##	CSI065	0	0		0				0000e			0	0
##	CSI076	0	0		0				0000e			0	0
##	,0,0		Otu09805	Otu	-	Otu(					9809 0	•	•
	CSI001	0	0		0	•	0		0		0	_	0
	CSI012	0	0		0		0		0		0		0
	CSI022	0	0		0		0		0		0		0
	CSI044	0	0		0		0		0		0		0

##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
##	CSI076	0	0	0		0		0		0		0	
##		Otu09811	Otu09812	Otu09	9813	Otu09	814	Otu09	815	C	tu0	9816	
##	CSI001	0	0 0	0.000000	e+00		0		0	0.000	000	e+00	
##	CSI012	0	0 0	0.000000	e+00		0		0	0.000	000	e+00	
##	CSI022	0	0 0	0.000000	e+00		0		0	2.151	.556	e-05	
##	CSI044	0	0 0	0.000000	e+00		0		0	0.000	000	e+00	
##	CSI055	0	0 0	0.000000	e+00		0		0	0.000	000	e+00	
##	CSI065	0	0 0	0.000000	e+00		0		0	0.000	000	e+00	
##	CSI076	0		0.000000			0			0.000			
##		Otu09817		)tu09819	Otu(		Otu		Otu(		Otu		
##	CSI001	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065 CSI076	0	0	0		0		0		0		0	
##	CSIUIO	Otu09824	·	0 25 Otu098	ദാദ ന	•	227	0 0tu098	വമ പ	•	വ	0 Otu098	30
##	CSI001		0.00000e+0		0	Juuda	0	Utuose	0	Juuose	0	Juuoso	0
##	CSI012		0.00000e+0		0		0		0		0		0
##	CSI022		0.00000e+0		0		0		0		0		0
##	CSI044		0.00000e+0		0		0		0		0		0
##	CSI055		6.45425e-0		0		0		0		0		0
##	CSI065		0.00000e+0		0		0		0		0		0
##	CSI076	0	0.00000e+0	00	0		0		0		0		0
##		Otu09831	Otu09832 C	tu09833	Otu	09834	Otu	09835	Otu	09836	Otu	09837	
## ##	CSI001	Otu09831 0	Otu09832 0	)tu09833 0	Otu(	09834	Otu	09835	Otu	09836	Otu	09837 0	
	CSI001 CSI012				Otu(		Otu		Otu(		Otu		
##		0	0	0	Otu	0	Otu	0	Otu	0	Otu	0	
##	CSI012	0	0	0	Otu	0	Otu	0	Otu	0	Otu	0	
## ## ##	CSI012 CSI022	0 0 0	0 0 0	0 0 0	Otu	0 0 0	Otu	0 0	Otu	0 0 0	Otu	0 0 0	
## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0	0 0 0	0 0 0	Otu(	0 0 0	Otu	0 0 0	Otu	0 0 0	Otu	0 0 0 0	
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0		0 0 0 0 0		0 0 0 0 0 0		0 0 0 0 0 0		0 0 0 0 0	
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0tu09840		0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0		0 0 0 0 0 0 0	
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0	
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0	
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI0012 CSI022	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0	
## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI0012 CSI022 CSI044	0 0 0 0 0 0 0 0 0tu09838 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	OtuC	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	51
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	OtuC	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	51 0
## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0tu09838 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu( 347 ( 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu( 049 ( 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu( 347 ( 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu() 347 () 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu() 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu() 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu() 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0tu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076  CSI001 CSI012 CSI022 CSI044 CSI055 CSI076  CSI001 CSI012 CSI022 CSI044 CSI055 CSI076  CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu() 347 () 0 () 0 () 0 () 0 () 9854	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0tu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu() 347 () 0 () 0 () 0 () 0 () 9854	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu 348 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0tu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0

##	CSI022	0	0	0 00	00000	2+00		0		0		0		0
##	CSI044	0			00000			0		0		0		0
##	CSI055	0			00000			0		0		0		0
##	CSI065	0	0	0.00	00000	e+00		0		0		0		0
##	CSI076	0	0	0.00	00000	e+00		0		0		0		0
##		Otu09859	Otu09860	Otu(	09861	Otu	9862	Otu(	9863	Otu	9864	Otu	9865	
##	CSI001	0	0		0		0		0		0		0	
##	CSI012	0	0		0		0		0		0		0	
##	CSI022	0	0		0		0		0		0		0	
##	CSI044	0	0		0		0		0		0		0	
##	CSI055	0	0		0		0		0		0		0	
##	CSI065	0	0		0		0		0		0		0	
##	CSI076	0	0		0		0		0		0		0	
##		Otu09866	Otu09867	Otu(	09868	Otu(	9869	Otu(	9870	Otu	9871	Otu	9872	
##	CSI001	0	0		0		0		0		0		0	
##	CSI012	0	0		0		0		0		0		0	
##	CSI022	0	0		0		0		0		0		0	
##	CSI044	0	0		0		0		0		0		0	
	CSI055	0	0		0		0		0		0		0	
##	CSI065	0	0		0		0		0		0		0	
##	CSI076	0	0	0+(	0	0+(	0	0+(	0	0+	0	0+0	0	
##	CCT OO 1			Utu		Utu	9876	Utu		otuc		Utuc	9879	
	CSI001 CSI012	0	0		0		0		0		0		0	
	CS1012	0	0		0		0		0		0		0	
	CSI044	0	0		0		0		0		0		0	
##	CSI055	0	0		0		0		0		0		0	
##	CSI065	0	0		0		0		0		0		0	
##	CSI076	0	0		0		0		0		0		0	
##	001010	-	9880 Otu09	9881	_	9882	-	9883	•	9884	-	9885	Otu09	886
##	CSI001	0.000000		0		0		0		0		0		0
##	CSI012	0.0000006	e+00	0		0		0		0		0		0
##	CSI022	2.151556	e-05	0		0		0		0		0		0
##	CSI044	0.0000000	e+00	0		0		0		0		0		0
##	CSI055	0.000000	e+00	0		0		0		0		0		0
##	CSI065	0.0000006	e+00	0		0		0		0		0		0
##	CSI076	0.000000	e+00	0		0		0		0		0		0
##		Otu09887	Otu09888	Otu	09889	Otu	9890	Otu	9891	Otu	9892	Otu	9893	
	CSI001	0	0		0		0		0		0		0	
	CSI012	0	0		0		0		0		0		0	
	CSI022	0	0		0		0		0		0		0	
	CSI044	0	0		0		0		0		0		0	
	CSI055	0	0		0		0		0		0		0	
	CSI065	0	0		0		0		0		0		0	
	CSI076	0	0	2005	0		0	2007	0		0	2000	0	000
##	<b>GGT004</b>	Otu09894			Utu09		UtuOS		Utu09		UtuOs		Otu09	
	CSI001		0.0000006			0		0		0		0		0
	CSI012		0.000000			0		0		0		0		0
	CSI022		0.0000006			0		0		0		0		0
	CSI044		0.0000006			0		0		0		0		0
	CSI055 CSI065		0.000000			0		0		0		0		0
	CS1003		0.0000000			0		0		0		0		0
##	ODIOLO		Otu09902		Ω±11Ω	-	Otu09	-	<b>Ω</b> ±11 <b>Ω</b> Ω	-	ſ	O Otu09	906	U
ππ		50403301	30403302		Judo	,,,,,	Jouos	, J U <del>T</del>	Jouos	,,,,,,,	,	Judos	,,,,,,,	

```
## CSI001
                             0 0.00000e+00
                                                     0
                                                               0 4.690652e-05
## CSI012
                   0
                             0 0.000000e+00
                                                     0
                                                               0 0.00000e+00
## CSI022
                   0
                             0 0.00000e+00
                                                     0
                                                               0 0.00000e+00
                                                     0
  CSI044
                   0
                             0
                               0.000000e+00
                                                               0 0.00000e+00
##
##
  CSI055
                   0
                               0.000000e+00
                                                     0
                                                               0 0.000000e+00
  CSI065
                   0
                             0 0.000000e+00
                                                     0
                                                               0 0.000000e+00
##
                             0 0.000000e+00
                                                     0
                                                               0 0.000000e+00
   CSI076
           Otu09907 Otu09908
##
                               Otu09909 Otu09910 Otu09911
                                                                 Otu09912 Otu09913
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
## CSI012
                             0
                                       0
                                                 0
                                                                                    Λ
                   0
                                                           0 0.00000e+00
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
## CSI065
                             0
                                       0
                                                 0
                                                                                    0
                   0
                                                           0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
           Otu09914
                    Otu09915
                               Otu09916 Otu09917
                                                       Otu09918 Otu09919 Otu09920
## CSI001
                             0
                                                 0 0.000000e+00
                   0
                                       0
                                                                         0
                                                                                    0
##
  CSI012
                   0
                             0
                                       0
                                                 0 1.724971e-05
                                                                          0
                                                                                    0
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
## CSI044
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
##
  CSI055
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
## CSI065
                             0
                                                 0 0.000000e+00
                                                                                    0
## CSI076
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                         0
                                                                                    0
           Otu09921 Otu09922 Otu09923 Otu09924 Otu09925 Otu09926 Otu09927
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI055
                   0
                                       0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
  CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu09928
                         Otu09929 Otu09930 Otu09931 Otu09932 Otu09933 Otu09934
## CSI001
                   0 4.690652e-05
                                           0
                                                     0
                                                               0
                                                                          0
                                                                                    0
  CSI012
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
## CSI022
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
  CSI044
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
## CSI055
                   0 0.000000e+00
                                           0
                                                     0
                                                                0
                                                                                    0
## CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
                   0 0.000000e+00
                                           0
                                                     0
                                                                         0
                                                                                    0
##
   CSI076
##
           Otu09935 Otu09936 Otu09937 Otu09938 Otu09939
                                                                 Otu09940 Otu09941
                             0
                                                           0 7.035977e-05
## CSI001
                                       0
                                                 0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI022
                                                           0 0.000000e+00
                                                                                    0
                   0
                             0
                                       0
                                                 0
                   0
                             0
                                       0
                                                 0
                                                                                    0
## CSI044
                                                           0 0.00000e+00
## CSI055
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
                   0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
                                                 0
##
   CSI076
                             0
                                       0
                                                           0 0.00000e+00
                                                                                    0
##
              Otu09942 Otu09943 Otu09944 Otu09945 Otu09946 Otu09947 Otu09948
## CSI001 0.00000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                   0
                                                    0
                                                                        0
  CSI012 0.00000e+00
                                0
                                          0
                                                              0
                                                                                   0
   CSI022 0.00000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                0
                                                    0
## CSI044 5.91471e-05
                                          0
                                                              0
                                                                        0
                                                                                  0
## CSI055 0.00000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI065 0.00000e+00
                                0
                                          0
                                                    0
                                                                        0
                                                                                  0
```

##	CSI076	0.00000e+0	00	0	0	0	0	0	0
##		Otu09949 (	Otu09950	Otu09951	Otu09952	0tu0995	3 Otu	09954 Otu	09955
##	CSI001	0	0	0	C	)	0	0	0
##	CSI012	0	0	0	C		0	0	0
##	CSI022	0	0	0	C		0	0	0
##	CSI044	0	0	0	C		0	0	0
##	CSI055	0	0	0	C		0	0	0
##	CSI065	0	0	0	C		0	0	0
##	CSI076	0	0	0	0		0	0	0
##	aa too a			Otu09958					Otu09962
##	CSI001	0	0	_	0.000000		0	0	0
##	CSI012	0	0	0	1.724971		0	0	0
##	CSI022	0	0	0	2.151556		0	0	0
##	CSI044	0	0	0	0.000000		0	0	0
##	CSI055	0	0	0	0.000000		0	0	0
##	CSI065	0	0	0			0	0	0
##	CSI076	0 Otu09963 (	0		0.000000		0	0 0tu09968	ŭ
##	CSI001	0	Dtu09964	0.00000e		0 0	9967 ( 0	0	0
##	CSI001	0	0	0.00000e		0	0	0	0
##	CS1012	0	0	0.00000e		0	0	0	0
##	CS1022	0	0	0.00000e		0	0	0	0
##	CS1044 CS1055	0	0	0.00000e		0	0	0	0
##	CSI055	0	0	7.56401e		0	0	0	0
##	CSI076	0	-	0.00000e		0	0	0	0
##	OBIOTO	•		Otu09972		•	•	•	•
##	CSI001	0	0	0	0		1 00u(	0	0
##	CSI012	0	0	0	C		0	0	0
##	CSI022	0	0	0	C		0	0	0
##	CSI044	0	0	0	C	)	0	0	0
##	CSI055	0	0	0	C	)	0	0	0
##	CSI065	0	0	0	C	)	0	0	0
##	CSI076	0	0	0	C	)	0	0	0
##		Otu0997	77 Ot	tu09978 Ot	tu09979	Otu09	980 Ot	tu09981 O	tu09982
##	CSI001	0.00000e+0	00 0.0000	000e+00	0 0	.000000e	+00	0	0
##	CSI012	0.00000e+0	00 0.0000	000e+00	0 0	.000000e	+00	0	0
##	CSI022	0.00000e+0	00 0.0000	000e+00	0 0	.000000e	+00	0	0
##	CSI044	5.91471e-0	05 0.0000	000e+00	0 0	.000000e	+00	0	0
##	CSI055	0.00000e+0	00 0.0000	000e+00	0 0	.000000e	+00	0	0
##	CSI065	0.00000e+0	00 0.0000	000e+00	0 0	.000000e	+00	0	0
##	CSI076	0.00000e+0	00 0.0000	000e+00	0 0	.000000e	+00	0	0
##		Otu09983 (	Otu09984	Otu09	9985 Otu0	9986 Otu	09987	Otu09988	Otu09989
##	CSI001	0		0.0000006		0	0	0	0
##	CSI012	0		0.0000006		0	0	0	0
##	CSI022	0		0.0000006		0	0	0	0
##	CSI044	0		0.0000006		0	0	0	-
##	CSI055	0		0.0000006		0	0	0	-
##	CSI065	0		0.0000006		0	0	0	-
##	CSI076	0		0.0000006		0	0	0	0
##	GG T A A :			9991 Otu09				Otu0	
		0.00000000		0	0	0		0.000000	
		0.00000000		0	0	0		1.724971	
		0.00000000		0	0	0		0.000000	
##	CS1044	0.00000000	000	0	0	0	0	0.000000	e+00

```
## CSI055 0.0000000000
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
   CSI065 0.0001134602
                                0
                                          0
                                                    0
                                                             0 0.000000e+00
   CSI076 0.0000000000
                                0
                                          0
                                                    0
                                                             0 0.000000e+00
##
           Otu09996 Otu09997 Otu09998 Otu09999 Otu10000 Otu10001 Otu10002
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                                                   0
## CSI022
                  0
                                      0
                                               0
                                                         0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI055
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                               0
                                                         0
                                                                   Λ
##
  CSI065
                  0
                                      0
                                                                             0
   CSI076
                  0
                            0
                                      0
                                               0
                                                         0
                                                                             0
          Otu10003 Otu10004 Otu10005
                                            Otu10006 Otu10007 Otu10008 Otu10009
##
##
  CSI001
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI012
                            0
                                                             0
                                                                       0
                                                                                 0
                  0
                                      0 0.00000e+00
## CSI022
                            0
                                      0 0.000000e+00
                                                                                 0
                  0
                                                             0
                                                                       0
##
  CSI044
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                                                                                 0
                  0
                            0
                                                             0
##
  CSI055
                                      0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI065
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                                 0
                  0
                                                             0
                                                                                 0
##
   CST076
                            0
                                     0 5.781349e-05
                                                                       0
##
          Otu10010 Otu10011
                                  Otu10012 Otu10013 Otu10014 Otu10015 Otu10016
## CSI001
                  Ω
                            0 0.000000e+00
                                                    Ω
                                                             Λ
                                                                       0
                                                                                 O
## CSI012
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                 0
## CSI022
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                  0
                                                    0
## CSI044
                            0 0.000000e+00
                                                             0
                                                                                 0
## CSI055
                                                    0
                                                             0
                                                                                 0
                  0
                            0 0.000000e+00
                                                                       0
  CSI065
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                                 0
   CSI076
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
          Otu10017 Otu10018 Otu10019 Otu10020
                                                      Otu10021 Otu10022
##
## CSI001
                                               0 0.000000e+00
                  0
                            0
                                      0
                                                                       0
## CSI012
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
## CSI022
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
##
   CST044
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                            0
##
   CSI055
                  0
                                      0
                                               0 0.00000e+00
                                                                       0
                            0
##
  CSI065
                  0
                                      0
                                               0 0.00000e+00
                                                                       0
   CSI076
                  0
                            0
                                               0 0.00000e+00
                                                                       0
##
##
               Otu10023 Otu10024
                                       Otu10025 Otu10026 Otu10027 Otu10028
## CSI001 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
  CSI012 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            Λ
  CSI022 0.000000e+00
                                0 0.000000e+00
                                                                  0
                                                                            0
                                                        0
  CSI044 0.000000e+00
                                                        Λ
                                                                  0
                                                                            0
                                0 0.00000e+00
   CSI055 0.000000e+00
                                0 0.000000e+00
                                                                  0
                                                                            0
  CSI065 0.000000e+00
                                0 0.00000e+00
                                                                  0
                                                                            0
                                                        0
   CSI076 0.000000e+00
                                0 5.781349e-05
                                                        0
                                                                  0
                                                                            0
                                                     Otu10032 Otu10033 Otu10034
##
               Otu10029 Otu10030
                                       Otu10031
  CSI001 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
  CSI012 1.724971e-05
                                0 0.000000e+00 1.724971e-05
                                                                      0
                                                                                0
   CSI022 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI044 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI055 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI065 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
                                0 0.000000e+00 0.000000e+00
                                                                      0
##
   CSI076 5.781349e-05
          Otu10035 Otu10036 Otu10037 Otu10038 Otu10039 Otu10040 Otu10041
##
## CSI001
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI012
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
```

```
## CSI022
                   0
                             0
                                                                               0
  CST044
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI055
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu10042 Otu10043 Otu10044 Otu10045 Otu10046 Otu10047
##
                                                                       Ot.1110048
  CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI065
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                   0
##
   CSI076
                   0
                             0
                                                           0
                                                                     0
                                                                               0
                                                      Otu10052 Otu10053 Otu10054
##
               Otu10049 Otu10050
                                        Otu10051
   CSI001 0.000000e+00
                                 0 4.690652e-05 0.000000e+00
                                                                        0
##
                                                                                  0
   CSI012 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI022 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI044 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI055 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI065 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
                                 0 0.000000e+00 0.000000e+00
##
   CSI076 0.000000e+00
                                                                        0
                                                                                  O
##
           Otu10055 Otu10056
                                  Otu10057 Otu10058 Otu10059 Otu10060
## CSI001
                   0
                             0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI012
                             0 0.00000e+00
                                                    0
##
                   0
                                                              0
                                                                        0
                                                                                  0
                                                    0
## CSI022
                   0
                             0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
   CSI044
                   0
                             0
                              5.91471e-05
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI055
                   0
                               0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                             0
                              0.00000e+00
                                                    0
##
   CSI065
                   0
                             0
                                                              0
                                                                        0
                                                                                  0
                                                    0
   CSI076
                   0
                              0.00000e+00
                                                              0
                                                                        Λ
                                                                                  0
##
                             0
##
           Otu10062 Otu10063
                                   Otu10064
                                                  Otu10065 Otu10066
                                                                          Otu10067
## CSI001
                   0
                             0 0.000000e+00 0.000000e+00
                                                                    0 0.00000e+00
##
   CSI012
                   0
                             0 0.000000e+00 0.000000e+00
                                                                    0 0.000000e+00
##
   CSI022
                   0
                               0.000000e+00 0.000000e+00
                                                                    0 0.00000e+00
                   0
                               0.000000e+00 0.000000e+00
##
   CSI044
                             0
                                                                    0 0.00000e+00
   CSI055
                   0
                               0.000000e+00 0.000000e+00
                                                                    0 2.151417e-05
##
   CSI065
                   0
                               0.000000e+00 3.782005e-05
                                                                    0 0.000000e+00
##
                             0
##
   CSI076
                   0
                             0 0.000000e+00 0.000000e+00
                                                                    0 2.890675e-05
##
           Otu10068 Otu10069
                               Otu10070 Otu10071 Otu10072
                                                                 Otu10073 Otu10074
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
  CSI012
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
                   0
                                       0
   CSI022
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
                   0
                                       0
  CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
##
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
                   Λ
                             0
                                       0
                                                 0
##
   CSI065
                                                           0 0.00000e+00
                                                                                    0
                             0
                                       0
                                                 0
##
   CSI076
                   0
                                                           0 0.00000e+00
                                                                                    0
                     Otu10076
                               Otu10077 Otu10078 Otu10079
           Otu10075
                                                                 Otu10080 Otu10081
##
##
  CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
   CSI012
                                                 0
##
                   0
                             0
                                       0
                                                           0 0.00000e+00
                                                                                    0
##
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
##
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
##
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
           Otu10082 Otu10083 Otu10084
                                             Otu10085 Otu10086 Otu10087 Otu10088
```

```
## CSI001
                                       0 0.00000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI012
                   0
                             0
                                       0 0.00000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI022
                   0
                             0
                                       0 2.151556e-05
                                                                0
                                                                          0
                                                                                    0
                             0
                                                                0
                                                                          0
                                                                                    0
## CSI044
                   0
                                       0 0.00000e+00
##
  CSI055
                   0
                             0
                                         0.000000e+00
                                                                0
                                                                          0
                                                                                    0
  CSI065
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
##
                             0
                                       0 0.000000e+00
                                                                0
   CSI076
                     Otu10090 Otu10091 Otu10092
                                                                            Otu10095
##
           Otu10089
                                                        Otu10093 Otu10094
## CSI001
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
## CSI012
                             0
                                       0
                                                                          0
                                                                                    0
                   0
                                                 0 5.174912e-05
## CSI022
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                                    0
                                                                                    0
## CSI044
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
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##
   CSI055
                   0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                    0
                   0
                             0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
## CSI065
##
   CSI076
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                    0
##
           Otu10096
                         Otu10097 Otu10098 Otu10099 Otu10100 Otu10101
                                                                            Otu10102
## CSI001
                   0 4.690652e-05
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI012
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
  CSI022
                   0 2.151556e-05
                                            0
                                                      0
                                                                0
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                                                                                    0
##
## CSI044
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
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                                                                                    0
##
   CSI055
                   0 0.000000e+00
                                            0
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                                                                0
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   CSI065
                   0 0.000000e+00
                                            0
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                                                                                    0
  CSI076
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
           Otu10103
                     Otu10104 Otu10105 Otu10106 Otu10107 Otu10108 Otu10109
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI012
                   0
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## CSI022
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  CSI044
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##
                                       0
                             0
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                                                                      0
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## CSI055
                   0
                                       0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu10110 Otu10111 Otu10112
                                              Otu10113 Otu10114 Otu10115 Otu10116
## CSI001
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI012
                             0
                                       0 0.000000e+00
                                                                0
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                                                                                    0
                   0
## CSI022
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI044
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI055
                   0
                             0
                                       0 0.00000e+00
                                                                0
                                                                                    0
## CSI065
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
   CSI076
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
##
##
                     Otu10118 Otu10119 Otu10120 Otu10121 Otu10122 Otu10123
           Otu10117
                             0
                                                           0
## CSI001
                   0
                                       0
                                                 0
                                                                                0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI022
                             0
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                                                                      0
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##
  CSI044
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI065
                                                 0
                                                           0
                   0
                             0
                                       0
                                                                      0
                                                                                0
                                                 0
##
   CSI076
                             0
                                       0
                                                           0
##
               Otu10124 Otu10125 Otu10126 Otu10127 Otu10128
                                                                       Otu10129
  CSI001 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0 0.00000e+00
   CSI012 5.174912e-05
                                 0
                                            0
                                                      0
                                                                0 0.00000e+00
   CSI022 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0 0.000000e+00
                                 0
                                            0
## CSI044 0.000000e+00
                                                      0
                                                                0 0.00000e+00
## CSI055 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0 0.00000e+00
## CSI065 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0 0.00000e+00
```

##	CSI076	0.0000006	e+00	0	0	0	0 2.890	)675e-05	
##		Otu10130	Otu10131	Otu10132	Otu10133	Otu10134	Otu10135	Otu10136	
##	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##			Otu10138					0142 Otu10:	
##	CSI001	0	0	0	0		0.0000006		0
##	CSI012	0	0	0	0		0.0000006		0
##	CSI022	0	0	0	0		2.1515566		0
##	CSI044	0	0	0	0		0.0000006		0
##	CSI055	0	0	0	0		0.0000006		0
##	CSI065	0	0	0	0		0.0000006		0
##	CSI076	0	0	0	0		0.0000006		0
## ##	CCTOO1	0.0000006	0144 Otu10		)000e+00	)tu10147 ( 0	Otu10148 ( 0		
##		1.724971			0000e+00 0000e+00	0	0	0	
##		0.0000006			3111e-05	0	0	0	
##		0.0000000			000e+00	0	0	0	
##		0.0000006			000e+00	0	0	0	
##		0.0000006			000e+00	0	0	0	
##		0.0000000			000e+00	0	0	0	
##	ODIOTO					•	Otu10155	•	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu10157	Otu10158	Otu10159	Otu10160	Otu10161	Otu10162	Otu10163	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##							Otu10169		
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0+110171	0 Otu10172	0+110172	0+111	0 0.174 O+11.1	0 0.175	0 0176 Otu10	177
##	CSI001	0	0		0.0000006		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
	CS1001	0	0		0.0000000		0	0	0
	CS1012	0	0		0.0000000		0	0	0
	CSI044	0	0		0.0000000		0	0	0
		· ·	· ·	Ū		- ••	•	•	•

```
## CSI055
                  0
                            0
                                      0 0.00000e+00
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                                                                                  0
## CSI065
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
  CSI076
##
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
               Otu10178 Otu10179 Otu10180 Otu10181 Otu10182 Otu10183
  CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
  CSI012 0.000000e+00
                                0
                                          0
                                                    0
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                                                                        0
   CSI022 0.000000e+00
                                          0
                                                    0
                                                              0
                                0
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## CSI044 0.000000e+00
                                0
                                          0
                                                    0
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                                                                        0
   CSI055 0.000000e+00
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                                                              Λ
   CSI065 0.000000e+00
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   CSI076 0.000000e+00
                                0
                                          0
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                                                              0
##
               Otu10184 Otu10185 Otu10186 Otu10187
                                                      Otu10188
                                                                Otu10189
##
   CSI001 0.000000e+00
                                0
                                          0
                                                    0
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                                0
                                          0
                                                    0
                                                              0
   CSI012 0.000000e+00
                                                                        0
  CSI022 0.000000e+00
                                0
                                          0
                                                    0
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   CSI044 0.000000e+00
                                0
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                                                                        0
   CSI055 0.000000e+00
                                0
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                                                                        0
   CSI065 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
   CSI076 0.000000e+00
                                0
                                          0
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##
                                                              0
                                                                        0
##
               Otu10190 Otu10191
                                       Otu10192 Otu10193
                                                               Otu10194 Otu10195
                                                         0 7.035977e-05
##
  CSI001 2.345326e-05
                                0 0.000000e+00
                                                                                 0
## CSI012 0.000000e+00
                                0 0.000000e+00
                                                         0 0.000000e+00
                                                                                 0
## CSI022 0.000000e+00
                                0 4.303111e-05
                                                         0 0.00000e+00
                                                                                 0
  CSI044 0.000000e+00
                                0 0.00000e+00
                                                         0 0.000000e+00
  CSI055 0.000000e+00
                                0 0.00000e+00
                                                         0 0.000000e+00
                                                                                 0
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI076 0.000000e+00
                                0 0.000000e+00
                                                         0 0.00000e+00
                                                                                 0
##
           Otu10196 Otu10197 Otu10198
##
                                            Otu10199
                                                           Otu10200
                                                                         Otu10201
## CSI001
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
## CSI012
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI022
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI044
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
                            0
##
   CSI055
                  0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI065
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
                  0
                            0
                                      0 0.000000e+00 5.781349e-05 0.000000e+00
##
   CSI076
           Otu10202 Otu10203 Otu10204 Otu10205 Otu10206 Otu10207 Otu10208
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI012
                  0
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                                      0
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## CSI022
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## CST044
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  CSI055
                  0
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## CSI065
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##
   CST076
                  0
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                                                                             0
           Otu10209 Otu10210 Otu10211 Otu10212 Otu10213 Otu10214
##
                                                                      0tu10215
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI012
                  0
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##
  CSI022
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##
   CSI044
                                      0
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##
  CSI055
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##
   CSI065
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                                                                             0
##
   CST076
                  0
##
               Otu10216 Otu10217 Otu10218 Otu10219 Otu10220 Otu10221 Otu10222
## CSI001 0.000000e+00
                                0
                                          0
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                                                              0
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                                                                                  0
## CSI012 0.000000e+00
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                                          0
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```

```
## CSI022 0.000000e+00
                                 0
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  CSI044 0.000000e+00
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   CSI055 0.000000e+00
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   CSI065 0.000000e+00
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##
   CSI076 0.000000e+00
                                 0
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##
               Otu10223 Otu10224 Otu10225 Otu10226 Otu10227
                                                                 Otu10228 Otu10229
  CSI001 4.690652e-05
                                 0
                                           0
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                                                                                   0
## CSI012 0.000000e+00
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   CSI022 0.000000e+00
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   CSI044 0.000000e+00
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   CSI055 0.000000e+00
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   CSI065 0.000000e+00
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   CSI076 0.000000e+00
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                                                                         0
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##
           Otu10230 Otu10231 Otu10232 Otu10233 Otu10234 Otu10235 Otu10236
## CSI001
                   0
                             0
                                       0
                                                 0
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                                                                     0
                                                                               0
## CSI012
                   0
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                                       0
                                                 0
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##
  CSI022
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   CSI044
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  CSI055
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##
                                       0
## CSI065
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##
   CST076
                   0
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##
           0tu10237
                    Otu10238
                              Otu10239 Otu10240
                                                                 Otu10242 Otu10243
                                                   0tu10241
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0.0.000000e+00
                                                                                   0
  CSI012
                   0
                             0
                                                 0
                                                           0 0.000000e+00
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##
                                       0
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## CSI022
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                                                 0
                                                           0 0.00000e+00
  CSI044
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                                       0
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  CSI055
                   0
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                                                 0
                                                           0 0.00000e+00
                                                                                   0
##
                             0
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##
   CSI065
                   0
                                       0
                                                           0 0.00000e+00
                             0
                                       0
                                                 0
   CSI076
                   0
                                                           0 2.890675e-05
                                                                                   0
##
##
               Otu10244 Otu10245 Otu10246 Otu10247 Otu10248
                                                                      Otu10249
##
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 4.303111e-05
   CSI044 0.000000e+00
                                 0
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                                                     0
                                                               0 0.00000e+00
   CSI055 0.000000e+00
                                 0
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                                                     0
                                                               0 0.00000e+00
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI076 0.000000e+00
                                 0
                                                     0
                                                               0 0.00000e+00
##
           Otu10250 Otu10251 Otu10252
                                             Otu10253 Otu10254
                                                                 Otu10255 Otu10256
## CSI001
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI012
                             0
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                   \cap
                                       0 1.724971e-05
## CSI022
                             0
                                       0 0.000000e+00
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                   0
## CSI044
                   0
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                                       0 0.00000e+00
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##
   CSI055
                   0
                                       0 0.00000e+00
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##
  CSI065
                                       0 0.000000e+00
                                                                         Λ
                   0
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##
   CSI076
                                       0 0.00000e+00
           Otu10257 Otu10258 Otu10259
                                             Otu10260 Otu10261
                                                                 0tu10262
##
## CSI001
                   0
                             0
                                       0 0.000000e+00
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  CSI012
                             0
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                                                                         0
##
                   0
                                       0 0.00000e+00
  CSI022
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                             0
                                       0 0.000000e+00
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## CSI044
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                                       0 0.00000e+00
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                                                                         0
                                       0 0.000000e+00
   CSI055
                   0
                             0
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##
## CSI065
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
## CSI076
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
##
               Otu10263
                             Otu10264 Otu10265
                                                      Otu10266 Otu10267 Otu10268
```

```
## CSI001 0.000000e+00 4.690652e-05
                                               0 0.00000e+00
                                                                                  0
   CSI012 0.000000e+00 0.000000e+00
                                               0 0.000000e+00
                                                                        0
                                                                                  0
   CSI022 0.000000e+00 0.000000e+00
                                                0 0.00000e+00
                                                                        0
                                                                                  0
   CSI044 0.000000e+00 0.000000e+00
                                               0 0.000000e+00
                                                                        0
                                                                                  0
   CSI055 0.000000e+00 0.000000e+00
                                                0 0.000000e+00
                                                                                  0
   CSI065 3.782005e-05 0.000000e+00
                                                0 0.000000e+00
                                                                        0
                                                                                  0
   CSI076 0.000000e+00 0.000000e+00
                                                0 0.000000e+00
                                                                        0
                                                                                  0
##
           Otu10269
                         Otu10270 Otu10271 Otu10272 Otu10273 Otu10274 Otu10275
## CSI001
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
                   0 0.00000e+00
  CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                                                                   0
  CSI044
                                           0
                                                     0
                                                               0
                                                                         0
##
                   0 0.00000e+00
##
   CSI055
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                           0
                                                     0
                                                               0
                                                                                   0
##
   CSI065
                   0 0.000000e+00
                                                                         0
   CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
##
           Otu10276
                    Otu10277 Otu10278 Otu10279 Otu10280 Otu10281
                                                                       0tu10282
## CSI001
                                       0
                                                 0
                                                           0
                   0
                             0
                                                                     0
                                                                               0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI022
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                                       0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
  CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI065
                             0
                                                 0
                                                                     0
                                                                               0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CST076
                    Otu10284 Otu10285 Otu10286 Otu10287 Otu10288
##
           Otu10283
                                                                       0tu10289
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI044
                   0
                                       0
                             0
                                                 0
## CSI055
                   0
                                       0
                                                           0
                                                                     0
                                                                               0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
  CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu10290
                    Otu10291 Otu10292 Otu10293 Otu10294
                                                                 Otu10295 Otu10296
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
  CSI012
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
##
                   0
                                       0
  CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
## CSI044
                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
                                       0
## CSI055
                   0
                             0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
## CSI065
                   0
                             0
                                       Λ
                                                 0
                                                           0 0.000000e+00
                                                                                   O
                   0
                             0
                                       0
                                                           0 2.890675e-05
                                                                                   0
##
   CSI076
##
           Otu10297 Otu10298 Otu10299
                                             Otu10300 Otu10301 Otu10302 Otu10303
                             0
                                       0 0.000000e+00
## CSI001
                   0
                                                               0
                                                                                   0
## CSI012
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
                                                                                   0
  CSI022
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                   0
                             0
                                                               0
                                                                         Λ
                                                                                   0
##
   CSI044
                                       0 0.000000e+00
  CSI055
                             0
                                                               0
                                                                                   0
                   0
                                       0 0.000000e+00
## CSI065
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
                   0
##
   CSI076
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                                   0
##
               Otu10304 Otu10305
                                        Otu10306 Otu10307 Otu10308 Otu10309
  CSI001 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
   CSI012 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
   CSI022 0.000000e+00
                                 0 0.000000e+00
                                                         0
                                                                    0
                                                                              0
## CSI044 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
## CSI055 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
## CSI065 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
```

##	CSI076	0.0000006	e+00	0 2.890	0675	e-05		0		0		0	
##	0.000		Otu10311				Otu1	-	Otu1	-	Otu:	10316	
##	CSI001	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
##	CSI076	0	0	0		0		0		0		0	
##		Otu10317	Otu10318	Otu10319	Otu:	10320		Otu10	321	Otu10	0322	Otu10	323
##	CSI001	0	0	0		0	0.00	0000e	+00		0		0
##	CSI012	0	0	0		0	5.17	4912e	-05		0		0
##	CSI022	0	0	0				0000e			0		0
##	CSI044	0	0	0				0000e			0		0
##	CSI055	0	0	0				0000e			0		0
##	CSI065	0	0	0				0000e			0		0
##	CSI076	0	0	0				0000e			0		0
##		Otu10324		Otu10				327 0	tu1(		Otu1(		
##	CSI001	0		0.0000006						0		0	
##	CSI012	0	0	0.0000006						0		0	
##	CSI022	0	0	0.000000						0		0	
##	CSI044	0	0	0.0000000						0		0	
##	CSI055	0		0.0000000						0		0	
##	CSI065	0		0.0000000						0		0	
##	CSI076	0		0.000000					004	0	2005	0	
##	CCT OO 1	Otu10330		0331 Otu10		Utul		Utulo		Utul		Utul	_
##	CSI001	_	0.0000006		0		0		0		0		0
##	CSI012 CSI022	0	0.000000		0		0		0		0		0
##	CSI022	0	0.0000000		0		0		0		0		0
##	CSI044	0			0		0		0		0		0
##	CSI065	0			0		0		0		0		0
##	CSI076	•	2.890675		0		0		0		0		0
##	ODIOTO		Otu10338		•	10340	-	Ω±1110	-	Ω±111(	•	Otu10	•
##	CSI001	0	0	0	o o u .			0000e		Outi	0	out	0
##	CSI012	0	0	0		0		0000e			0		0
##	CSI022	0	0	0		0	0.00	0000e	+00		0		0
	CSI044	0	0	0		0		0000e			0		0
	CSI055	0	0	0				0000e			0		0
	CSI065	0	0	0				2005e			0		0
##	CSI076	0	0	0		0	0.00	0000e	+00		0		0
##		Otu10344	Otu10345	Otu10346	Otu:	10347	0	tu103	48 (	)tu103	349 (	)tu103	350
##	CSI001	0	0	0		0	0.00	000e+	00		0		0
##	CSI012	0	0	0		0	0.00	000e+	00		0		0
##	CSI022	0	0	0		0	0.00	000e+	00		0		0
##	CSI044	0	0	0		0	0.00	000e+	00		0		0
##	CSI055	0	0	0		0	0.00	000e+	00		0		0
##	CSI065	0	0	0		0	0.00	000e+	00		0		0
##	CSI076	0	0	0				000e+			0		0
##		Otu10351	Otu10352	Otu10353	Otu:	10354	Otu1		Otu:	10356	Otu:	10357	
	CSI001	0	0	0		0		0		0		0	
	CSI012	0	0	0		0		0		0		0	
	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	

```
## CSI055
                  0
                            0
                                                                             0
  CSI065
                                                0
                                                          0
                                                                    0
                                                                             0
##
                  0
                            0
                                      0
##
   CSI076
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
           Otu10358 Otu10359 Otu10360 Otu10361 Otu10362 Otu10363 Otu10364
##
  CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI012
                            0
                                                0
                                                          0
                                                                    0
##
                  0
                                      0
                                                                             0
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
                                                0
                                                          0
                                                                    Λ
##
   CSI065
                  0
                                      Λ
                                                                             0
   CSI076
                  0
                            0
                                                          0
                                                                             0
                                      Otu10367 Otu10368 Otu10369 Otu10370
##
           Otu10365
                         Otu10366
##
   CSI001
                  0 2.345326e-05 0.00000e+00
                                                        0
                                                                 0
                                                                           0
                                                                           0
##
   CSI012
                  0 0.000000e+00 0.00000e+00
                                                        0
                                                                 0
   CSI022
                  0 0.000000e+00 0.00000e+00
                                                                           0
##
                                                        0
                                                                 0
   CSI044
                  0 0.000000e+00 0.00000e+00
                                                        0
                                                                 0
                                                                           0
                  0 0.000000e+00 0.00000e+00
                                                        0
##
   CSI055
                                                                 0
                                                                           0
   CSI065
                  0 0.000000e+00 7.56401e-05
                                                        0
                                                                 0
                  0 0.000000e+00 0.00000e+00
                                                                 0
                                                                           0
##
   CST076
                                                        0
##
               Otu10371 Otu10372
                                       Otu10373 Otu10374 Otu10375
                                                                    Otu10376
##
   CSI001 0.000000e+00
                                0 2.345326e-05
                                                        Λ
                                                                   0
                                                                            Ω
   CSI012 0.000000e+00
                                0 0.000000e+00
                                                         0
                                                                   0
                                                                            0
  CSI022 0.000000e+00
                                                                   0
                                0 0.00000e+00
                                                        0
                                                                            0
   CSI044 0.000000e+00
                                                                   0
                                0 0.00000e+00
                                                        0
                                                                            0
                                                                   0
   CSI055 2.151417e-05
                                0 0.00000e+00
                                                        0
                                                                            0
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                   0
                                                                            0
   CSI076 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                   0
                                                                            0
##
           Otu10377 Otu10378 Otu10379 Otu10380 Otu10381 Otu10382
##
                                                                          Otu10383
##
                  0
                                                          0
  CSI001
                            0
                                      0
                                                0
                                                                    0 0.00000e+00
  CSI012
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
  CSI022
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
   CSI044
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
   CSI055
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
   CSI065
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
   CSI076
                            0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
                  0
               Otu10384 Otu10385
##
                                       Otu10386 Otu10387 Otu10388 Otu10389
   CSI001 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                            0
  CSI012 0.000000e+00
                                0 0.00000e+00
                                                                   0
                                                                            0
                                                        Ω
   CSI022 0.000000e+00
                                0 0.000000e+00
                                                                   0
                                                                            0
                                                        0
   CSI044 0.000000e+00
                                                                   0
                                                                            0
                                0 0.00000e+00
                                                        Ω
   CSI055 0.000000e+00
                                                                   0
                                0 0.00000e+00
                                                                            0
   CSI065 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                   0
                                                                            0
   CSI076 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                            0
               Otu10390 Otu10391 Otu10392 Otu10393 Otu10394
                                                                     Otu10395
##
   CSI001 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI012 0.000000e+00
                                                    0
                                0
                                          0
                                                              0 5.174912e-05
   CSI022 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                0.000000e+00
                                0
   CSI044 0.000000e+00
                                          0
                                                    0
                                                                0.000000e+00
                                                                0.000000e+00
   CSI055 0.000000e+00
                                0
                                          0
                                                    0
   CSI065 3.782005e-05
                                0
                                          0
                                                    0
                                                                0.000000e+00
                                0
                                          0
                                                              0 0.000000e+00
##
   CSI076 0.000000e+00
##
           Otu10396 Otu10397 Otu10398 Otu10399
                                                      Otu10400 Otu10401
## CSI001
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
## CSI012
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
```

```
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
  CSI044
                   0
                             0
                                                 0 0.00000e+00
                                                                         0
##
                                       0
   CSI055
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
   CSI065
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
##
##
   CST076
                             0
                                       0
                                                 0 0.000000e+00
                                                                         0
##
               Otu10402 Otu10403 Otu10404 Otu10405 Otu10406 Otu10407
                                                                           Otu10408
                                           0
                                                               0
   CSI001 0.000000e+00
                                 0
                                                     0
                                                                         0
                                                                                   0
                                                                                   0
  CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
   CSI044 0.000000e+00
                                                                         Λ
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
                                           0
                                                                                   0
   CSI065 0.000000e+00
                                 0
                                                     0
                                                               0
                                                                         0
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
           Otu10409 Otu10410 Otu10411 Otu10412 Otu10413 Otu10414 Otu10415
## CSI001
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                   0
                                                                               0
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI022
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                                       0
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI055
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                                       0
##
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CST076
                   Λ
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu10416
                         Otu10417
                                        Otu10418 Otu10419 Otu10420 Otu10421
## CSI001
                   0 0.000000e+00 0.000000e+00
                                                                    0
                                                          0
                                                                              0
   CSI012
                   0 0.000000e+00 0.000000e+00
                                                                    0
                                                          0
                                                                              0
                                                                    0
                                                                              0
## CSI022
                   0 0.000000e+00 0.000000e+00
                                                          0
   CSI044
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
   CSI055
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
##
                   0 0.000000e+00 3.782005e-05
                                                                    0
##
   CSI065
                                                          0
                                                                              0
                                                          0
                                                                    0
   CSI076
                   0 0.000000e+00 0.000000e+00
                                                                              0
##
##
           Otu10422 Otu10423 Otu10424 Otu10425 Otu10426 Otu10427
                                                                           Otu10428
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
                   0
                             0
                                       0
                                                 0
                                                           0
##
   CSI044
                                                                     0 0.00000e+00
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
   CSI065
                   0
                             0
                                                 0
                                                           0
##
                                       0
                                                                     0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
           Otu10429
                         Otu10430 Otu10431 Otu10432 Otu10433 Otu10434
## CSI001
                   0 2.345326e-05
                                           0
                                                     0
                                                               0
                                                                         0
   CSI012
                                           0
                                                     0
                                                               0
                                                                         0
##
                   0 1.724971e-05
   CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
   CSI044
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
                                           0
                                                     0
##
   CSI055
                   0 0.00000e+00
                                                               0
                                                                         0
                                           0
                                                     0
                                                               0
                                                                         0
##
   CSI065
                   0 0.000000e+00
                                           0
                                                               0
                                                                         0
##
   CSI076
                   0 0.000000e+00
               Otu10435 Otu10436 Otu10437 Otu10438
##
                                                            Otu10439 Otu10440
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
                                 0
                                                                              0
   CSI012 0.000000e+00
                                           0
                                                       1.724971e-05
   CSI022 0.000000e+00
                                 0
                                           0
                                                       0.000000e+00
                                                                              0
   CSI044 0.000000e+00
                                 0
                                           0
                                                       0.000000e+00
                                                                              0
   CSI055 0.000000e+00
                                 0
                                           0
                                                       0.000000e+00
                                                                              0
                                 0
   CSI065 0.000000e+00
                                           0
                                                     0 0.00000e+00
                                                                              0
##
  CSI076 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
##
               Otu10441 Otu10442 Otu10443 Otu10444 Otu10445 Otu10446
```

```
## CSI001 0.000000e+00
                                                                0
                                                                          0
## CSI012 0.000000e+00
                                            0
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## CSI022 0.000000e+00
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  CSI044 0.000000e+00
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   CSI055 0.000000e+00
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   CSI065 0.000000e+00
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                                            0
  CSI076 0.000000e+00
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                                                                0
                             Otu10448 Otu10449 Otu10450 Otu10451 Otu10452
##
               0tu10447
  CSI001 0.000000e+00 0.00000e+00
                                               0
                                                         0
                                                                   0
                                                         0
                                                                   0
                                                                             0
   CSI012 1.724971e-05 0.00000e+00
                                               0
   CSI022 0.000000e+00 0.00000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI044 0.000000e+00 1.97157e-05
                                               0
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   CSI055 0.000000e+00 0.00000e+00
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                                                                   0
                                                                             0
   CSI065 0.000000e+00 0.00000e+00
                                                         0
                                                                   0
   CSI076 0.000000e+00 0.00000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
##
           Otu10453 Otu10454 Otu10455 Otu10456 Otu10457 Otu10458 Otu10459
## CSI001
                                       0
                                                 0
                                                           0
                                                                      0
                   0
                             0
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## CSI012
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## CSI022
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                                       0
## CSI044
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## CSI055
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## CSI065
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                                       0
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                                                           0
                                                                      0
## CST076
                   0
                                                                                0
           Otu10460 Otu10461 Otu10462 Otu10463 Otu10464 Otu10465 Otu10466
##
## CSI001
                   0
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                                       0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
           Otu10467 Otu10468 Otu10469 Otu10470 Otu10471 Otu10472 Otu10473
## CSI001
                   0
                             0
                                       0
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                                                                      0
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## CSI012
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## CSI022
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## CSI044
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                                       0
## CSI055
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## CSI065
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                             0
                                       Λ
                                                 0
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                                                                      0
                                                                                0
                   0
                             0
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                                                 0
                                                           0
## CSI076
##
           Otu10474 Otu10475 Otu10476 Otu10477 Otu10478 Otu10479
                                                                            Ot.1110480
                             0
                                                           0
                                                                      0 0.000000e+00
## CSI001
                   0
                                       0
                                                 0
## CSI012
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                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
## CSI022
                                                                      0 0.000000e+00
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## CSI044
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                                                                      0 0.00000e+00
## CSI055
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                                       0
                                                                      0 0.00000e+00
## CSI065
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                                       0
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                                                           0
                                                                      0 3.782005e-05
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
##
           Otu10481 Otu10482 Otu10483 Otu10484 Otu10485
                                                                  Otu10486 Otu10487
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI012
                   0
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                                                 0
                                                           0 3.449941e-05
                                                                                    0
## CSI022
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                                                 0
                                                           0 0.000000e+00
                                                                                    0
## CSI044
                   0
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                                       0
                                                 0
                                                           0 0.00000e+00
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## CSI055
                   0
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                                       0
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                                                           0 0.000000e+00
                                                                                    0
## CSI065
                   0
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                                                           0 0.00000e+00
                                                                                    0
```

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0
                                                       0 0.000000e+00
## CSI076
                 0
                           0
                                    0
##
          Otu10488 Otu10489 Otu10490 Otu10491 Otu10492 Otu10493 Otu10494
## CSI001
                 0
                           0
                                    0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
                 0
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                                              0
                                                       0
              Otu10495 Otu10496 Otu10497 Otu10498 Otu10499 Otu10500 Otu10501
##
## CSI001 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
## CSI012 1.724971e-05
                               0
                                        0
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
                                                                              0
## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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##
              Otu10502 Otu10503 Otu10504 Otu10505 Otu10506 Otu10507 Otu10508
## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.00000e+00
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## CSI055 0.000000e+00
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                                                  0
                                                           Λ
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## CSI065 0.000000e+00
                               0
                                        0
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                                                           0
                               0
                                        0
                                                  0
                                                           Λ
                                                                     Λ
## CSI076 0.000000e+00
          Otu10509 Otu10510 Otu10511 Otu10512 Otu10513 Otu10514 Otu10515
## CSI001
                          0
                                    0
                                              0
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                 0
## CSI012
                           0
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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                                              0
                                                       0
## CSI076
                 0
                                    0
          Otu10516
                        Otu10517
                                    Otu10518 Otu10519 Otu10520 Otu10521
##
## CSI001
                 0 2.345326e-05 0.00000e+00
                                             0
                                                               0
## CSI012
                 0 1.724971e-05 0.00000e+00
                                                     0
                                                               0
                                                                        0
## CSI022
                 0 0.000000e+00 0.00000e+00
                                                     0
## CSI044
                 0 0.000000e+00 0.00000e+00
                                                     Λ
                                                               Ω
                                                                        0
## CSI055
                 0 0.000000e+00 6.45425e-05
                                                     0
## CSI065
                 0 0.000000e+00 0.00000e+00
                                                     Λ
                                                               Ω
                 0 0.000000e+00 0.00000e+00
                                                     0
##
          Otu10522 Otu10523 Otu10524 Otu10525
                                                    Otu10526 Otu10527 Otu10528
## CSI001
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                     Ω
## CSI012
                 0
                           0
                                    0
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                                                                              0
                                              0 0.000000e+00
## CSI022
                           0
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                                              0 0.00000e+00
## CSI044
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                                              0 0.000000e+00
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                           0
## CSI055
                 0
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                                              0 0.00000e+00
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                                    0
## CSI065
                                              0 0.000000e+00
                 0
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                                    0
                                              0 0.000000e+00
                                                                     0
                                                                              0
          Otu10529 Otu10530 Otu10531 Otu10532 Otu10533
                                                             Otu10534 Otu10535
## CSI001
                 0
                          0
                                    0
                                              0
                                                       0 0.000000e+00
                                                                              0
                 0
                           0
                                    0
                                              0
## CSI012
                                                       0 0.00000e+00
                                                                              0
## CSI022
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                                    0
                                              0
                                                       0 0.000000e+00
                                                                              0
                          0
## CSI044
                 0
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                                                      0 0.000000e+00
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```

```
## CSI055
                  0
                            0
                                      0
                                                          0 0.00000e+00
## CSI065
                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                   0
                                      0
##
  CSI076
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
##
           Otu10536 Otu10537 Otu10538 Otu10539 Otu10540 Otu10541 Otu10542
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
## CSI012
                  0
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## CSI022
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## CSI044
                  0
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##
   CSI055
                  0
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                            0
                                      0
                                                0
                                                          0
                                                                    Λ
##
  CSI065
                  0
                                                                              0
   CSI076
                  0
                            0
                                      0
                                                0
           Otu10543 Otu10544 Otu10545
##
                                             Otu10546 Otu10547
                                                                     Otu10548
##
   CSI001
                  0
                            0
                                      0 0.000000e+00
                                                               0 2.345326e-05
## CSI012
                            0
                                      0 1.724971e-05
                  0
                                                               0 0.00000e+00
## CSI022
                  0
                            0
                                      0 4.303111e-05
                                                               0 0.000000e+00
## CSI044
                  0
                            0
                                      0 0.000000e+00
                                                               0 0.00000e+00
                  0
                            0
                                      0 0.000000e+00
##
  CSI055
                                                               0 0.00000e+00
##
   CSI065
                  0
                            0
                                      0 0.000000e+00
                                                               0 0.00000e+00
                  0
                            0
                                      0 0.000000e+00
##
   CST076
                                                               0 0.000000e+00
##
           Otu10549 Otu10550 Otu10551 Otu10552 Otu10553 Otu10554 Otu10555
## CSI001
                  0
                            0
                                      0
                                                0
                                                          Λ
                                                                    0
                                                                              0
## CSI012
                  0
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## CSI022
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## CSI044
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## CSI055
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   CSI065
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##
   CSI076
                  0
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                                                                    0
                                                                              0
                    Otu10557
                              Otu10558 Otu10559 Otu10560
           Otu10556
                                                                 Otu10561 Otu10562
## CSI001
                  0
                                      0
                                                0
                                                                                   0
                            0
                                                          0 0.00000e+00
## CSI012
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
## CSI022
                  0
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                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
##
   CSI044
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
                            0
##
   CSI055
                  0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
   CSI065
                  0
                            0
                                      0
                                                          0 0.000000e+00
##
                                                0
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                  0
                            0
                                      0
                                                0
                                                          0 2.890675e-05
                                                                                   0
##
           Otu10563 Otu10564 Otu10565 Otu10566 Otu10567 Otu10568 Otu10569
##
## CSI001
                  0
                            0
                                      0
                                                0
                                                          0
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                                                                              0
## CSI012
                  0
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## CSI022
                  0
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                                                          0
                                                                    0
## CSI044
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   CSI055
                  0
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## CSI065
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                                                                              0
                                                0
##
   CSI076
                  0
                            0
                                      0
                                                          0
                         Otu10571 Otu10572 Otu10573 Otu10574
##
           Otu10570
                                                                     Otu10575
## CSI001
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
## CSI012
                  0 1.724971e-05
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI022
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
                                           0
                                                     0
   CSI044
                  0 0.00000e+00
                                                               0 0.00000e+00
   CSI055
                  0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
##
   CSI065
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
                                                               0 8.672024e-05
                  0 0.000000e+00
                                           0
                                                     0
##
##
           Otu10576 Otu10577
                                   Otu10578 Otu10579
                                                           Otu10580
                                                                          Otu10581
## CSI001
                  0
                            0 0.000000e+00
                                                     0 0.000000e+00 0.000000e+00
## CSI012
                  0
                            0 0.000000e+00
                                                     0 0.000000e+00 3.449941e-05
```

```
## CSI022
                  0
                            0 2.151556e-05
                                                     0 2.151556e-05 0.000000e+00
   CSI044
                  0
                            0 0.000000e+00
                                                     0 0.000000e+00 0.000000e+00
##
                            0 0.000000e+00
   CSI055
                  0
                                                     0 0.000000e+00 0.000000e+00
   CSI065
                  0
                              0.000000e+00
                                                       0.000000e+00 0.000000e+00
##
##
   CST076
                  0
                            0 0.000000e+00
                                                     0 0.000000e+00 0.000000e+00
              Otu10582
                            Otu10583 Otu10584 Otu10585 Otu10586
##
                                                                         Ot:110587
   CSI001 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
   CSI012 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
   CSI022 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.000000e+00
                                              0
                                                        0
   CSI044 1.97157e-05 0.000000e+00
                                                                    0.000000e+00
   CSI055 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.00000e+00
   CSI065 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                    0.000000e+00
   CSI076 0.00000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.000000e+00
           Otu10588 Otu10589 Otu10590 Otu10591 Otu10592
##
                                                                 Otu10593 Otu10594
##
  CSI001
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
                   0
##
   CSI012
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
                  0
                            0
                                                0
                                                                                   0
##
   CSI022
                                      0
                                                          0 4.303111e-05
   CSI044
                  0
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                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
   CSI055
                  0
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##
                                      0
                                                          0 0.00000e+00
##
   CSI065
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
##
   CST076
                  Λ
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
           Otu10595
                         Otu10596 Otu10597 Otu10598 Otu10599 Otu10600
##
## CSI001
                                           0
                                                     0
                                                               0
                  0.000000e+00
                                                                         0
   CSI012
                                           0
                                                     0
                                                               0
##
                  0 0.00000e+00
                                                                         0
##
  CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
   CSI044
                  0 0.000000e+00
                                           0
                                                     0
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                                                                         0
   CSI055
                                           0
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                                                               0
                                                                         0
##
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
   CSI065
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
   CSI076
                   0 0.000000e+00
##
##
               Otu10601 Otu10602 Otu10603 Otu10604
                                                       Otu10605
                                                                 Otu10606
                                                                           Otu10607
##
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI012 0.000000e+00
                                 0
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   CSI022 0.000000e+00
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                                                                                   0
   CSI044 0.000000e+00
   CSI055 2.151417e-05
                                 0
                                           0
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                                                               0
                                                                         0
                                                                                   0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
##
   CSI076 0.000000e+00
                                 0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
           Otu10608 Otu10609 Otu10610
                                            Otu10611 Otu10612
                                                                    Otu10613
## CSI001
                  0
                            0
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   CSI012
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   CSI022
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                                                              0 2.151556e-05
  CSI044
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##
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                                        0.00000e+00
##
   CSI055
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                                        6.45425e-05
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   CSI065
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##
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                                      0 0.00000e+00
##
   CSI076
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           Otu10614
                    Otu10615
                              Otu10616
                                        Otu10617 Otu10618 Otu10619 Otu10620
##
## CSI001
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   CSI012
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   CSI022
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   CSI044
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##
   CSI055
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   CSI065
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##
  CSI076
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##
               Otu10621 Otu10622 Otu10623 Otu10624 Otu10625 Otu10626
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## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
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  CSI055 0.000000e+00
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  CSI065 0.000000e+00
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## CSI076 0.000000e+00
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               Otu10627 Otu10628 Otu10629 Otu10630 Otu10631 Otu10632 Otu10633
##
## CSI001 2.345326e-05
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   CSI012 0.000000e+00
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   CSI022 0.000000e+00
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## CSI044 0.000000e+00
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   CSI055 2.151417e-05
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   CSI065 0.000000e+00
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   CSI076 0.000000e+00
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##
               Otu10634 Otu10635 Otu10636 Otu10637 Otu10638 Otu10639 Otu10640
## CSI001 0.000000e+00
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   CSI012 5.174912e-05
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
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  CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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           Otu10641
                         Otu10642 Otu10643 Otu10644 Otu10645 Otu10646
## CSI001
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## CSI012
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## CSI022
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  CSI065
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## CSI076
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##
              Otu10647 Otu10648 Otu10649 Otu10650 Otu10651 Otu10652
## CSI001 0.00000e+00
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   CSI012 0.00000e+00
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   CSI022 0.00000e+00
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  CSI044 0.00000e+00
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## CSI055 6.45425e-05
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## CSI065 0.00000e+00
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## CSI076 0.00000e+00
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               Otu10653 Otu10654 Otu10655 Otu10656
##
                                                           Otu10657 Otu10658
## CSI001 2.345326e-05
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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                                                     0 5.781349e-05
           Otu10659 Otu10660 Otu10661 Otu10662 Otu10663 Otu10664 Otu10665
##
## CSI001
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## CSI012
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## CSI055
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## CSI065
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## CSI076
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##
          Otu10666 Otu10667 Otu10668 Otu10669 Otu10670 Otu10671 Otu10672
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
          Otu10673 Otu10674 Otu10675 Otu10676 Otu10677
                                                               Otu10678 Otu10679
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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          Otu10680 Otu10681 Otu10682 Otu10683 Otu10684
                                                               Otu10685 Otu10686
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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             Otu10687 Otu10688 Otu10689 Otu10690
                                                         Otu10691 Otu10692
## CSI001 0.00000e+00
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## CSI012 0.00000e+00
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                                                  0 1.724971e-05
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## CSI022 0.00000e+00
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## CSI044 0.00000e+00
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## CSI055 0.00000e+00
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   CSI065 0.00000e+00
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   CSI076 0.00000e+00
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          Otu10693 Otu10694 Otu10695 Otu10696 Otu10697 Otu10698 Otu10699
##
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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   CSI076
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##
          Otu10700 Otu10701
                                  Otu10702 Otu10703
                                                          Otu10704 Otu10705
                                                   0 0.000000e+00
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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##
          Otu10706 Otu10707 Otu10708 Otu10709 Otu10710 Otu10711 Otu10712
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
               Otu10713 Otu10714 Otu10715 Otu10716 Otu10717 Otu10718 Otu10719
## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
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   CSI055 0.000000e+00
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   CSI065 0.000000e+00
   CSI076 0.000000e+00
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           Otu10720 Otu10721 Otu10722 Otu10723 Otu10724 Otu10725 Otu10726
##
## CSI001
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## CSI012
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## CSI022
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## CSI044
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##
  CSI055
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##
   CSI065
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##
   CST076
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           Otu10727 Otu10728 Otu10729
                                             Otu10730 Otu10731
                                                                     0tu10732
## CSI001
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                                      0 0.000000e+00
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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  CSI065
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   CSI076
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##
           Otu10733 Otu10734 Otu10735 Otu10736
                                                     Otu10737 Otu10738 Otu10739
## CSI001
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## CSI012
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## CSI022
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   CSI044
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   CSI055
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   CSI065
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##
   CSI076
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##
                             Otu10741 Otu10742 Otu10743 Otu10744 Otu10745
               Otu10740
## CSI001 0.000000e+00 0.000000e+00
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## CSI012 0.000000e+00 0.000000e+00
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## CSI022 0.000000e+00 0.000000e+00
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## CSI044 0.000000e+00 0.000000e+00
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   CSI055 0.000000e+00 0.000000e+00
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## CSI065 0.000000e+00 0.000000e+00
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   CSI076 0.000000e+00 0.000000e+00
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           Otu10746 Otu10747 Otu10748 Otu10749 Otu10750 Otu10751 Otu10752
##
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## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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  CSI065
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##
           Otu10753 Otu10754 Otu10755 Otu10756 Otu10757 Otu10758 Otu10759
## CSI001
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## CSI012
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## CSI022
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##
  CSI044
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##
  CSI055
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  CSI065
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##
##
   CSI076
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           Otu10760 Otu10761 Otu10762 Otu10763 Otu10764 Otu10765
##
                                                                        Ot:110766
## CSI001
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## CSI012
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##
   CSI022
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  CSI044
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   CSI055
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   CSI065
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##
##
   CSI076
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                     Otu10768
                               Otu10769 Otu10770 Otu10771 Otu10772
##
           Otu10767
                                                                             Otu10773
## CSI001
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##
   CSI012
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   CSI022
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##
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   CSI044
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  CSI055
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##
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##
  CSI065
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##
   CST076
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##
           Otu10774
                     Otu10775
                               Otu10776
                                              Otu10777 Otu10778 Otu10779 Otu10780
## CSI001
                                        0 0.000000e+00
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   CSI012
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##
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## CSI022
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   CSI044
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                                        0 0.00000e+00
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                                                                           0
                                                                                     0
##
   CSI055
                   0
                             0
                                         0.000000e+00
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                                                                                     0
                                        0
   CSI065
                   0
                             0
                                        0 0.000000e+00
                                                                 0
                                                                           0
                                                                                     0
##
                                                                 0
                                                                           0
                                                                                     0
   CSI076
                   0
                             0
                                        0 0.000000e+00
##
##
           Otu10781 Otu10782
                                    Otu10783 Otu10784
                                                             Otu10785 Otu10786
## CSI001
                   0
                             0 0.000000e+00
                                                      0 0.00000e+00
                                                                                0
##
   CSI012
                   0
                             0 3.449941e-05
                                                      0 0.000000e+00
                                                                                0
##
   CSI022
                   0
                               0.000000e+00
                                                      0 0.00000e+00
                                                                                0
   CSI044
                   0
                                                                                0
##
                             0
                               0.000000e+00
                                                      0 0.00000e+00
   CSI055
                   0
                               0.000000e+00
                                                        0.000000e+00
                                                                                0
##
   CSI065
                               0.000000e+00
                                                        0.000000e+00
                                                                                0
##
                   0
                             0
                                                      0
##
   CSI076
                             0 0.000000e+00
                                                      0 0.00000e+00
##
                Otu10787 Otu10788 Otu10789 Otu10790
                                                         Otu10791 Otu10792 Otu10793
   CSI001 0.000000e+00
                                  0
                                            0
                                                      0
                                                                 0
                                                                           0
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##
   CSI012 0.000000e+00
                                  0
                                                      0
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                                                                           0
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                                            0
   CSI022 2.151556e-05
                                  0
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   CSI044 0.000000e+00
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   CSI055 0.000000e+00
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   CSI065 0.000000e+00
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   CSI076 0.000000e+00
                                  0
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                                                                 0
           Otu10794 Otu10795 Otu10796 Otu10797 Otu10798 Otu10799
                                                                        Otu10800
##
## CSI001
                   0
                             0
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   CSI012
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##
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   CSI022
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##
   CSI044
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   CSI055
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##
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## CSI065
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## CSI076
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                                                                                 0
##
           Otu10801 Otu10802 Otu10803
                                              Otu10804 Otu10805 Otu10806 Otu10807
```

```
## CSI001
                                       0 0.00000e+00
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## CSI012
                   0
                             0
                                       0 0.00000e+00
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## CSI022
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                                       0 0.00000e+00
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## CSI044
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                                       0 0.000000e+00
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## CSI055
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                                       0 0.000000e+00
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## CSI065
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                                       0 0.000000e+00
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                                       0 0.00000e+00
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   CSI076
                   0
                                   Otu10810 Otu10811 Otu10812 Otu10813 Otu10814
##
           Otu10808 Otu10809
## CSI001
                   0
                             0 0.000000e+00
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## CSI012
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                             0 0.000000e+00
## CSI022
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                             0 0.00000e+00
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## CSI044
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                             0 0.000000e+00
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##
  CSI055
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                             0 0.000000e+00
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                                                               0
                                                                         0
                                                                                    0
                             0 3.782005e-05
                                                               0
                                                                                    0
## CSI065
                   0
                                                     0
## CSI076
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                                    0
##
           Otu10815 Otu10816 Otu10817 Otu10818 Otu10819
                                                                 Otu10820
## CSI001
                                                 0
                   0
                             0
                                       0
                                                           0 0.00000e+00
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
## CSI022
                   0
                             0
                                                 0
                                                           0 4.303111e-05
                                       0
## CSI044
                   0
                             0
                                       0
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                                                           0 0.00000e+00
##
  CSI055
                   0
                             0
                                       0
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                                                           0 0.000000e+00
## CSI065
                             0
                                                           0 0.000000e+00
## CSI076
                             0
                                       0
                                                           0 0.000000e+00
                   0
               Otu10821 Otu10822 Otu10823
                                                  Otu10824 Otu10825 Otu10826
##
## CSI001 0.000000e+00
                                 0
                                           0 4.690652e-05
                                                                    0
                                                                              0
   CSI012 3.449941e-05
                                 0
                                           0 0.00000e+00
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  CSI022 0.000000e+00
                                 0
                                           0 0.000000e+00
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   CSI044 0.000000e+00
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                                           0 0.00000e+00
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  CSI055 0.000000e+00
                                           0 0.000000e+00
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  CSI065 0.000000e+00
                                           0 0.00000e+00
                                                                    0
                                                                              0
## CSI076 0.000000e+00
                                           0 0.00000e+00
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##
           Otu10827 Otu10828
                                   Otu10829 Otu10830 Otu10831 Otu10832 Otu10833
## CSI001
                   0
                             0 0.00000e+00
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## CSI012
                             0 3.449941e-05
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## CSI022
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## CSI044
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## CSI055
                             0 0.000000e+00
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## CSI065
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                             0 0.000000e+00
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## CSI076
##
           Otu10834 Otu10835 Otu10836 Otu10837 Otu10838 Otu10839 Otu10840
                             0
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
           Otu10841 Otu10842 Otu10843 Otu10844 Otu10845 Otu10846
## CSI001
                   0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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```

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## CSI076
                  0
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##
          Otu10848 Otu10849 Otu10850 Otu10851 Otu10852 Otu10853 Otu10854
## CSI001
                  0
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                                      0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
                  0
                            0
                                      0
                                                          Λ
                                                                    0
               Otu10855 Otu10856 Otu10857
##
                                                 Otu10858 Otu10859 Otu10860
## CSI001 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                   0
## CSI012 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                   0
                                                                             0
## CSI022 4.303111e-05
                                0
                                          0 0.000000e+00
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                                0
                                          0 0.00000e+00
                                                                   0
## CSI044 0.000000e+00
                                                                             0
## CSI055 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                   0
                                                                             0
## CSI065 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                   0
  CSI076 0.000000e+00
                                0
                                          0 5.781349e-05
                                                                   0
                                                                             0
##
               Otu10861
                             Otu10862 Otu10863 Otu10864 Otu10865 Otu10866
## CSI001 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI012 0.000000e+00 3.449941e-05
                                               0
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                                                                   0
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## CSI022 0.000000e+00 0.000000e+00
                                               0
                                                         Λ
                                                                   0
                                                                             0
## CSI044 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
## CSI055 4.302833e-05 0.000000e+00
                                               0
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                                                         0
                                                                             0
## CSI065 0.000000e+00 0.000000e+00
                                               0
                                                                   0
                                               0
                                                                   0
## CSI076 0.000000e+00 0.000000e+00
                                                         Ω
                                                                             0
           Otu10867 Otu10868 Otu10869 Otu10870 Otu10871 Otu10872 Otu10873
## CSI001
                            0
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                  0
## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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   CSI076
                            0
                                      0
                                                                              0
               Otu10874 Otu10875 Otu10876 Otu10877 Otu10878 Otu10879 Otu10880
##
## CSI001 0.000000e+00
                                0
                                          0
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                                                              0
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                                                                                  0
## CSI012 3.449941e-05
                                0
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
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                                                              Λ
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
                                0
                                          Λ
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                                                              Λ
                                                                        0
                                                                                  0
  CSI076 0.000000e+00
                                          0
                                                    0
##
           Otu10881 Otu10882 Otu10883 Otu10884 Otu10885 Otu10886 Otu10887
## CSI001
                  0
                            0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
                                      0
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##
           Otu10888 Otu10889 Otu10890 Otu10891 Otu10892 Otu10893 Otu10894
## CSI001
                  0
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## CSI012
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## CSI022
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## CSI044
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```

```
## CSI055
                   0
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## CSI065
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                                      0
   CSI076
##
                   0
                             0
                                                 0
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                                                                     0
                                                                               0
                              Otu10896
##
               Otu10895
                                            Otu10897 Otu10898 Otu10899 Otu10900
   CSI001 0.000000e+00 0.000000e+00 0.000000e+00
                                                              0
                                                                        0
   CSI012 0.000000e+00 1.724971e-05 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
   CSI022 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI044 0.000000e+00 0.000000e+00 0.000000e+00
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                                                                        0
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   CSI055 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
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   CSI065 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
   CSI076 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
                                                                                  0
           Otu10901 Otu10902 Otu10903 Otu10904 Otu10905 Otu10906
                                                                           Otu10907
##
##
  CSI001
                   0
                             0
                                      0
                                                 0
                                                          0
                                                                     0 0.000000e+00
## CSI012
                             0
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                                                                     0 0.00000e+00
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## CSI022
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## CSI044
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                                                                     0 0.000000e+00
##
   CSI055
                                      0
##
   CSI065
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                                                                     0 0.00000e+00
                             0
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##
   CST076
                   0
                                      0
                                                                     0 0.00000e+00
##
           Otu10908 Otu10909 Otu10910 Otu10911 Otu10912 Otu10913 Otu10914
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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   CSI065
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   CSI076
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##
                    Otu10916 Otu10917 Otu10918 Otu10919 Otu10920
##
           Otu10915
                                                                           Otu10921
## CSI001
                                                 0
                                                                     0 0.000000e+00
                   0
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                                      0
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## CSI012
                   0
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                                                                     0 0.00000e+00
## CSI022
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##
   CSI044
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                                                                     0 0.000000e+00
##
   CSI055
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                                                                     0 4.302833e-05
   CSI065
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##
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                                                                     0 0.00000e+00
   CSI076
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                                                           0
                                                                     0 0.00000e+00
##
           Otu10922 Otu10923 Otu10924 Otu10925
                                                      Otu10926 Otu10927 Otu10928
##
## CSI001
                   0
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                                       0
                                                 0 0.00000e+00
                                                                        0
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## CSI012
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                                                 0 0.00000e+00
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## CSI022
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## CSI044
                                                 0 3.94314e-05
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   CSI055
                                                 0 0.00000e+00
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   CSI065
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##
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##
   CSI076
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                                      0
                                                 0 0.00000e+00
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                                                                                  0
               Otu10929 Otu10930 Otu10931 Otu10932 Otu10933 Otu10934
##
   CSI001 0.000000e+00
                                 0
                                           0
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                                                                         0
   CSI012 0.000000e+00
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   CSI022 0.000000e+00
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   CSI044 0.000000e+00
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   CSI055 0.000000e+00
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   CSI065 0.000000e+00
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##
   CSI076 0.000000e+00
                                                                         0
##
               Otu10935 Otu10936 Otu10937 Otu10938 Otu10939
                                                                 Otu10940 Otu10941
## CSI001 0.000000e+00
                                 0
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                                                                                   0
## CSI012 0.000000e+00
                                 0
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```

##	CSI022	0.000000	e+00	0	0	0		0	0		0
##	CSI044	0.0000000	e+00	0	0	0		0	0		0
##	CSI055	4.3028336	e-05	0	0	0		0	0		0
##	CSI065	0.0000000	e+00	0	0	0		0	0		0
##	CSI076	0.0000000	e+00	0	0	0		0	0		0
##		Otu10942	Otu10943	Otu10944	Otu10945	Otu10	946	Otu10947	Otu:	10948	
##	CSI001	0	0	0	0		0	0		0	
##	CSI012	0	0	0	0		0	0		0	
##	CSI022	0	0	0	0		0	0		0	
##	CSI044	0	0	0	0		0	0		0	
##	CSI055	0	0	0	0		0	0		0	
##	CSI065	0	0	0	0		0	0		0	
##	CSI076	0	0	0	0		0	0		0	
##		Otu10949	Otu10950	Otu10951	Otu10952	Otu10	953	Otu10954	Otu:	10955	
##	CSI001	0	0	0	0		0	0		0	
##	CSI012	0	0	0	0		0	0		0	
##	CSI022	0	0	0	0		0	0		0	
##	CSI044	0	0	0	0		0	0		0	
##	CSI055	0	0	0	0		0	0		0	
##	CSI065	0	0	0	0		0	0		0	
##	CSI076	0	0	0	0		0	0		0	
##		Otu10956	Otu10957	Otu10958	Otu10959	Otu10	960	Otu1	0961	Otu109	62
##	CSI001	0	0	0	0		0	0.000000	e+00		0
##	CSI012	0	0	0	0		0	3.449941	e-05		0
##	CSI022	0	0	0	0		0	0.000000	e+00		0
##	CSI044	0	0	0	0		0	0.000000	e+00		0
##	CSI055	0	0	0	0		0	0.000000	e+00		0
##	CSI065	0	0	0	0		0	0.000000	e+00		0
##	CSI076	0	0	0	0			0.000000			0
##			Otu10964				tu10	)967 Otu1		Otu109	
##	CSI001	0	0	0	0.0000000			0	0		0
##	CSI012	0	0	0	0.0000000			0	0		0
##	CSI022	0	0	0	0.0000000			0	0		0
##	CSI044	0	0	0	0.0000000			0	0		0
##	CSI055	0	0	0	4.3028336			0	0		0
##	CSI065 CSI076	0	0	0	0.000000			0	0		0
##	CSIUIO	-		Otu10972			074	-	-	10076	U
	CSI001	000000	00010971	00010972	00010973	Utuit	0	0.0010973	ocu.	0	
	CSI012	0	0	0	0		0	0		0	
	CSI022	0	0	0	0		0	0		0	
	CSI044	0	0	0	0		0	0		0	
	CSI055	0	0	0	0		0	0		0	
	CSI065	0	0	0	0		0	0		0	
##	CSI076	0	0	0	0		0	0		0	
##	0.020.0	Otu10977		0978 Otu10		0980		-	0982		83
	CSI001		0.0000006		0	0		0	0		0
	CSI012		3.4499416		0	0		0	0		0
	CSI022		0.0000006		0	0		0	0		0
	CSI044		0.0000006		0	0		0	0		0
	CSI055		0.0000006		0	0		0	0		0
	CSI065		0.0000006		0	0		0	0		0
##	CSI076	0	0.0000006	e+00	0	0		0	0		0
##		Otu10984	Otu10985	Otu10986	Otu10987	Otu10	988	Otu10989	Otu:	10990	

##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu10991	Otu10	992 Otu10	0993 Otu10	0994 Otu10	)995 C	tu10996
##	CSI001	0	0.0000006	e+00	0	0	0 0.000	000e+00
##	CSI012	0	3.4499416	e-05	0	0	0 0.000	000e+00
##	CSI022	0	0.0000006	e+00	0	0	0 0.000	000e+00
##	CSI044	0	0.0000006	e+00	0	0	0 0.000	000e+00
##	CSI055	0	0.0000006		0	0	0 0.000	000e+00
##	CSI065	0	0.0000006		0	0		000e+00
##	CSI076	0	0.0000006		0	0		000e+00
##	ODIOTO	Otu10997			•	-	Otu11002	
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	CSIUIO	•	Otu11005	Otu11006	Otu11007	·	-	Otu11010
##	CSI001	000011004	0	0 0	0	0	0	0
##	CSI001	0	0	0	0	0	0	0
##	CS1012	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
			-			-	-	-
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	GGT 004	Otu11011		Otu11013	Otu11014	Otu11015		Otu11017
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	0	0
	CSI076	0	0	0	0	0	0	0
##	GGT 004		1018 Otu11					Otu11023
		4.6906526			0000e+00	0		.000000e+00
		0.0000006			0000e+00	0		.449941e-05
		0.0000006			0000e+00	0		.000000e+00
		0.0000006			0000e+00	0		.000000e+00
		0.0000006			2833e-05	0		.000000e+00
		0.0000006			0000e+00	0		.000000e+00
	CSI076	0.0000006			0000e+00	0		.000000e+00
##							Otu11029	
	CSI001	0	0	0	0	0	0	0
	CSI012	0	0	0	0	0	0	0
	CSI022	0	0	0	0	0	0	0
	CSI044	0	0	0	0	0	0	0
	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0

##	CSI076	0	0		0	0		0		0		0	
##	001010	Otu11031	Otu110	32 Ot	-	-	1034	•	.035	-	1036	•	037
##	CSI001	0	0.000000e+	-00	0		0		0		0		0
##	CSI012	0	0.000000e+	-00	0		0		0		0		0
##	CSI022	0	2.151556e-	-05	0		0		0		0		0
##	CSI044	0	0.000000e+	-00	0		0		0		0		0
##	CSI055	0	0.000000e+	-00	0		0		0		0		0
##	CSI065	0	0.000000e+	-00	0		0		0		0		0
##	CSI076	0	0.000000e+		0		0		0		0		0
##		Otu11038	Otu11039	Ot:	u11040	Otu1		Otu11		Otu11		Otu11	044
##	CSI001	0			00e+00		0		0		0		0
##	CSI012	0			00e+00		0		0		0		0
##	CSI022	0			00e+00		0		0		0		0
##	CSI044	0			00e+00		0		0		0		0
##	CSI055	0			00e+00		0		0		0		0
##	CSI065 CSI076	0			00e+00 00e+00		0		0		0		0
##	CSIU/6	-	0 0 Otu11046 0			110/12	•	110/10	•	11050	•	11051	U
	CSI001	00011043	0	JULI IO	47 Ota 0	0	ocu.	0	ocu.	0	ocu.	0	
	CSI012	0	0		0	0		0		0		0	
	CSI022	0	0		0	0		0		0		0	
	CSI044	0	0		0	0		0		0		0	
##	CSI055	0	0		0	0		0		0		0	
##	CSI065	0	0		0	0		0		0		0	
##	CSI076	0	0		0	0		0		0		0	
##		Otu11052	Otu11053	Ot:	u11054	Otu1	1055	Otu11	.056	Otu11	1057	Otu1	058
##	CSI001	0	0 0	.0000	00e+00		0		0		0		0
##	CSI012	0	0 0	.0000	00e+00		0		0		0		0
##	CSI022	0	0 0	.0000	00e+00		0		0		0		0
##	CSI044	0	0 0	.0000	00e+00		0		0		0		0
##	CSI055	0			00e+00		0		0		0		0
##	CSI065	0			00e+00		0		0		0		0
##	CSI076	0			00e+00	0. 4.	0	0. 44	0	0. 4.	0	0. 4.	0
##	GGT001	Otu11059			u11061	Utu1		Utull		Utull		Utu11	
##	CSI001 CSI012	0			00e+00		0		0		0		0
##	CS1012	0			00e+00 00e+00		0		0		0		0
	CSI022	0			00e+00 00e+00		0		0		0		0
	CSI055	0			33e-05		0		0		0		0
	CSI065	0			00e+00		0		0		0		0
	CSI076	0			00e+00		0		0		0		0
##		Otu11066	Otu11067 0	tu110	68 Otu	11069	Otu:	11070	Otu1	11071	Otu:	11072	
##	CSI001	0	0		0	0		0		0		0	
##	CSI012	0	0		0	0		0		0		0	
##	CSI022	0	0		0	0		0		0		0	
##	CSI044	0	0		0	0		0		0		0	
##	CSI055	0	0		0	0		0		0		0	
	CSI065	0	0		0	0		0		0		0	
	CSI076	0	0		0	0		0		0		0	
##			Otu11074 O	tu110			Otu:		Otu1		Otu:		
	CSI001	0	0		0	0		0		0		0	
	CSI012	0	0		0	0		0		0		0	
	CSI022	0	0		0	0		0		0		0	
##	CSI044	0	0		0	0		0		0		0	

```
## CSI055
                 0
                           0
                                    0
                                              0
                                                        0
## CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                                                        0
## CSI076
                  0
                           0
                                     0
                                              0
                                                                  0
##
          Otu11080 Otu11081
                                  Otu11082 Otu11083 Otu11084 Otu11085 Otu11086
## CSI001
                 0
                           0 0.000000e+00
                                                  0
                                                            0
                                                                      0
## CSI012
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
## CSI022
                  0
                           0 0.000000e+00
                                                   0
                                                            0
## CSI044
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
## CSI055
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                  0
                                                   0
                                                            Λ
                                                                      Λ
## CSI065
                           0 0.000000e+00
## CSI076
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                                0
          Otu11087 Otu11088
                                 Otu11089 Otu11090 Otu11091 Otu11092
##
## CSI001
                 0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
## CSI012
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
## CSI022
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
## CSI044
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
## CSI055
## CSI065
                           0 0.00000e+00
                                                   0
                                                            0
## CSI076
                  0
                           0 0.000000e+00
                                                   0
                                                            0
              Otu11093 Otu11094 Otu11095
                                               Otu11096 Otu11097 Otu11098
## CSI001 4.690652e-05
                                Λ
                                       0 0.000000e+00
                                                                Λ
                                                                          0
## CSI012 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
## CSI022 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0
                                                                          0
## CSI044 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                 0
                                0
                                                                 0
                                                                          0
## CSI055 0.000000e+00
                                         0 0.000000e+00
## CSI065 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
## CSI076 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0
                                                                          0
          Otu11099 Otu11100 Otu11101 Otu11102 Otu11103 Otu11104 Otu11105
## CSI001
                 0
                     0
                                    0
                                              0
                                                        0
                                                                  0
## CSI012
                  0
                           0
                                     0
                                               0
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## CSI022
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                                     0
                                               0
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                                                                           0
## CSI044
                  0
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                                     0
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## CSI055
                  0
                                     0
## CSI065
                  0
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                                     0
                                               0
                                                        0
                                                                  0
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## CSI076
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
##
          Otu11106 Otu11107 Otu11108 Otu11109 Otu11110 Otu11111 Otu11112
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
## CSI012
                  Λ
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI044
                  Λ
                           0
                                     Ω
                                               \cap
                                                        Λ
                                                                  Ω
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## CSI055
                  0
                           0
## CSI065
                  0
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                                     0
                                               0
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                                                                  0
                                                                           0
                           0
                                              0
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                  0
                                     0
                                                                  0
                                                                           0
          Otu11113 Otu11114 Otu11115 Otu11116 Otu11117 Otu11118 Otu11119
                           0
                                     0
                                               0
## CSI001
                  0
                                                        0
                                                                  0
## CSI012
                  0
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                                     0
                                               0
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## CSI022
                  0
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                  0
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                                     0
                                               0
## CSI044
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## CSI055
                  0
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                                     0
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                                                        0
                                                                  0
                                                                           0
## CSI065
                  0
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                  0
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                                     0
                                               0
                                                        0
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                                                                           0
          Otu11120 Otu11121 Otu11122 Otu11123 Otu11124 Otu11125 Otu11126
## CSI001
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                                                        0
## CSI012
                  0
                           0
                                     0
                                               0
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                                                                           0
```

```
## CSI022
                   0
                             0
                                                                               0
## CST044
                   0
                             0
                                                           0
                                       0
                                                 0
                                                                     0
                                                                               0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu11127 Otu11128 Otu11129 Otu11130 Otu11131 Otu11132 Otu11133
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
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                                                                               0
## CSI022
                   0
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                                       0
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                                                                     0
## CSI044
                   0
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   CSI055
                   0
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                                       0
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                                                                               0
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
##
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                    Otu11135
                              Otu11136 Otu11137 Otu11138
##
           Otu11134
                                                                 Otu11139 Otu11140
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
  CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 3.449941e-05
                                                                                    0
  CSI022
                                                 0
                                                                                    0
##
                   0
                             0
                                       0
                                                           0 0.00000e+00
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
  CSI055
                   0
                             0
                                       0
                                                 0
                                                                                   0
##
                                                           0 0.00000e+00
##
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
           Otu11141 Otu11142 Otu11143
                                             Otu11144
                                                            Otu11145 Otu11146
## CSI001
                             0
                                       0 0.000000e+00 4.690652e-05
                   0
                                                                              0
  CSI012
                             0
                                       0 0.000000e+00 0.000000e+00
                   0
                                                                              0
                             0
                                       0 4.303111e-05 0.000000e+00
                                                                              0
## CSI022
                   0
   CSI044
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
   CSI055
                   0
                             0
                                       0 0.000000e+00 0.000000e+00
                                                                              0
##
                             0
                                       0 0.000000e+00 0.000000e+00
##
   CSI065
                   0
                                                                              0
                             0
   CSI076
                   0
                                       0 0.000000e+00 0.000000e+00
##
##
               Otu11147 Otu11148 Otu11149 Otu11150 Otu11151
                                                                     0tu11152
##
   CSI001 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI022 4.303111e-05
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
                                 0
                                           0
                                                     0
   CSI044 0.000000e+00
                                                               0 3.94314e-05
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
##
           Otu11153
                        Otu11154 Otu11155 Otu11156 Otu11157 Otu11158 Otu11159
## CSI001
                   0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                   0 0.00000e+00
  CSI012
                                          0
                                                    0
                                                              Λ
                                                                        0
##
                                                                                  0
   CSI022
                   0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI044
                   0 3.94314e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                                                    0
   CSI055
                   0 0.00000e+00
                                          0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI065
                   0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI076
                   0 0.00000e+00
                                          0
                         Otu11161 Otu11162 Otu11163 Otu11164
##
                                                                 Otu11165
                                                                           Otu11166
           Otu11160
## CSI001
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI012
                                                               0
                                                                                    0
                   0 3.449941e-05
                                           0
                                                     0
                                                                         0
   CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI044
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
                   0 0.000000e+00
   CSI055
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
## CSI065
                   0 0.00000e+00
                                           0
                                                     0
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                                                                         0
                                                                                    0
## CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
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##
           Otu11167 Otu11168 Otu11169 Otu11170 Otu11171 Otu11172 Otu11173
```

	CCT CC4	0	0	0		•		_		•		^	
	CSI001	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
##	CSI076	0	0	0		0		0		0		0	
##		Otu11174				Otu11		Utu11		Otu111		Otu111	_
##	CSI001	0		0.0000000			0		0		0		0
##	CSI012	0	0	3.4499416			0		0		0		0
##	CSI022	0		0.0000006			0		0		0		0
##	CSI044	0	0	0.0000006			0		0		0		0
##	CSI055	0	0				0		0		0		0
##	CSI065	0	0	0.0000006			0		0		0		0
##	CSI076	0		0.0000006			0		0		0		0
##		Otu11181	Otu11182	Otu11183	Otu1	11184	Otu1	l1185		Otu111	86	Otu111	.87
##	CSI001	0	0	0		0		0	0.00	)0000e+	00		0
##	CSI012	0	0	0		0		0	0.00	)0000e+	00		0
##	CSI022	0	0	0		0		0	0.00	)0000e+	00		0
##	CSI044	0	0	0		0		0	0.00	)0000e+	00		0
##	CSI055	0	0	0		0		0	0.00	)0000e+	00		0
##	CSI065	0	0	0		0		0	0.00	)0000e+	00		0
##	CSI076	0	0	0		0		0	0.00	)0000e+	00		0
##		Otu11188	Otu11189	Otu11190		Otu11	191	Otu1	1192	Otu111	93	Otu111	.94
##	CSI001	0	0	0	0.00	0000e	+00		0		0		0
##	CSI012	0	0	0	0.00	0000e	+00		0		0		0
##	CSI022	0	0	0	4.30	)3111e	-05		0		0		0
##	CSI044	0	0	0	0.00	0000e	+00		0		0		0
##	CSI055	0	0	0	0.00	0000e	+00		0		0		0
##	CSI065	0	0	0	0.00	0000e	+00		0		0		0
##	CSI076	0	0	0	0.00	0000e	+00		0		0		0
##		Otu11195	Otu11196	Otu11197	Otu:	11198	Otu1	l1199	Otui	1200 O	tu1	1201	
##	CSI001	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
	CSI076	0	0	0		0		0		0		0	
##		Otu11202	Otu1	1203 Otu1:	1204	Otu11	205	Otu1	1206	Otu112	07	Otu112	208
##	CSI001	0	0.0000006		0		0		0		0		0
	CSI012		0.0000006		0		0		0		0		0
	CSI022		0.0000006		0		0		0		0		0
	CSI044		0.0000006		0		0		0		0		0
	CSI055		0.0000006		0		0		0		0		0
	CSI065		0.0000006		0		0		0		0		0
	CSI076		0.0000000		0		0		0		0		0
##	551010		Otu11210		-	11212	-	11213	-	11214 N	-	1215	•
	CSI001	0 0 0	0	0	Jul	0	Jul	0	Jul	0	Jul	0	
	CSI001	0	0	0		0		0		0		0	
	CS1012	0	0	0		0		0		0		0	
	CS1022	0	0	0		0		0		0		0	
	CSI044	0	0	0		0		0		0		0	
	CS1055	0	0	0		0		0		0		0	
##	OPTODS	U	U	U		U		U		U		U	

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0
                         0 0 0 0 0
## CSI076
##
             Otu11216 Otu11217 Otu11218 Otu11219 Otu11220 Otu11221 Otu11222
## CSI001 0.000000e+00
                             0
                                0
                                             0
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.00000e+00
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## CSI055 2.151417e-05
                                      0
## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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          Otu11223 Otu11224 Otu11225 Otu11226 Otu11227 Otu11228 Otu11229
##
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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         Otu11230 Otu11231 Otu11232 Otu11233 Otu11234 Otu11235 Otu11236
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## CST001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
         Otu11237
                      Otu11238 Otu11239 Otu11240 Otu11241 Otu11242
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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                0 0.00000e+00
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##
             Otu11243 Otu11244 Otu11245 Otu11246
                                                     Otu11247 Otu11248
## CSI001 0.000000e+00
                       0 0
                                         0 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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                                               0 4.303111e-05
## CSI044 0.000000e+00
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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         Otu11249 Otu11250 Otu11251
                                      Otu11252 Otu11253 Otu11254 Otu11255
                   0
                                  0 2.345326e-05
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## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
                                  0 0.000000e+00
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         Otu11256 Otu11257 Otu11258 Otu11259 Otu11260 Otu11261 Otu11262
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
          Otu11263
                        Otu11264 Otu11265
                                               Otu11266 Otu11267 Otu11268
## CST001
                  0 4.690652e-05
                                         0 2.345326e-05
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## CSI012
                  0 0.000000e+00
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                                         0 0.00000e+00
## CSI022
                  0 0.00000e+00
                                         0 0.000000e+00
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## CSI044
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  CSI055
                  0 0.000000e+00
                                         0 0.000000e+00
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                                                                Λ
## CSI065
                  0 0.00000e+00
                                         0 0.00000e+00
   CSI076
                  0 0.00000e+00
                                         0 0.00000e+00
##
          Otu11269
                        Otu11270 Otu11271 Otu11272 Otu11273 Otu11274 Otu11275
## CSI001
                  0 2.345326e-05
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## CSI012
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## CSI022
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## CSI044
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## CSI055
## CSI065
                  0 0.00000e+00
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##
  CST076
                  0 0.000000e+00
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          Otu11276 Otu11277 Otu11278 Otu11279 Otu11280 Otu11281 Otu11282
## CSI001
                  Λ
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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          Otu11283 Otu11284 Otu11285 Otu11286
                                                    Otu11287 Otu11288 Otu11289
## CSI001
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## CSI012
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## CSI022
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## CST044
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## CSI055
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## CSI065
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   CSI076
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##
##
          Otu11290
                        Otu11291 Otu11292 Otu11293 Otu11294 Otu11295 Otu11296
## CSI001
                  0 0.000000e+00
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## CSI012
                  0 0.000000e+00
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## CSI022
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                  0 0.000000e+00
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## CSI044
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  CSI055
                  0 4.302833e-05
## CSI065
                  0 0.00000e+00
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                  0 0.00000e+00
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          Otu11297 Otu11298 Otu11299 Otu11300
##
                                                         Otu11301 Otu11302
## CSI001
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                           0 4.690652e-05
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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                           0 0.000000e+00
##
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          Otu11303 Otu11304 Otu11305 Otu11306 Otu11307 Otu11308 Otu11309
## CSI001
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## CSI012
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## CSI022
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## CST044
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## CSI055
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## CSI065
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##
   CSI076
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##
               Otu11310 Otu11311 Otu11312 Otu11313 Otu11314 Otu11315
## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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  CSI022 0.000000e+00
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## CSI044 0.000000e+00
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   CSI055 0.000000e+00
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## CSI065 0.000000e+00
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   CSI076 0.000000e+00
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               Otu11316 Otu11317 Otu11318 Otu11319 Otu11320 Otu11321 Otu11322
##
## CSI001 0.000000e+00
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## CSI012 1.724971e-05
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   CSI022 0.000000e+00
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  CSI044 0.000000e+00
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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##
   CSI076 0.000000e+00
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##
               Otu11323 Otu11324 Otu11325 Otu11326 Otu11327
                                                                  Otu11328 Otu11329
## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.000000e+00
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
##
           Otu11330 Otu11331 Otu11332 Otu11333 Otu11334 Otu11335 Otu11336
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
           Otu11337 Otu11338 Otu11339 Otu11340 Otu11341 Otu11342 Otu11343
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
## CSI076
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           Otu11344 Otu11345 Otu11346 Otu11347 Otu11348 Otu11349 Otu11350
##
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
           Otu11351 Otu11352 Otu11353 Otu11354 Otu11355 Otu11356 Otu11357
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		_	_	_	_	_	_	
	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0		0
##	CSI022	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##			358 Otu11			1361 Otu1		Otu11363
##		0.000000e		0	0	0		0000e+00
##		0.000000e		0	0	0		0000e+00
##		0.000000e		0	0	0		0000e+00
##		0.000000e		0	0	0		0000e+00
##		2.151417e		0	0	0		0000e+00
##		0.000000e		0	0	0		0000e+00
##	CSI076	0.000000e		0	0	0		0000e+00
##		Otu11364	Otu11365	Otu11366	Otu11367	Otu11368	Otu11369	Otu11370
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu11371	Otu11372	Otu11373	Otu11374	Otu11375	Otu11376	Otu11377
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu11378	Otu11379	Otu11380	Otu11381	Otu11382	Otu11383	Otu11384
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	-	0
##		Otu11385	Otu11386				Otu11389 (	)tu11390
	CSI001	0	0			e+00 0.00		0
	CSI012	0	0			e-05 0.00		0
	CSI022	0	0			e+00 4.30		0
	CSI044	0	0			e+00 0.00		0
	CSI055	0	0			e+00 0.00		0
	CSI065	0	0			e+00 0.00		0
##	CSI076	0	0			e+00 0.00		0
##		Otu11391					Otu11396	Otu11397
	CSI001	0	0	0	0	0	0	0
	CSI012	0	0	0	0	0	0	0
	CSI022	0	0	0	0	0		0
	CSI044	0	0	0	0	0		0
	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0

##	CSI076	0	0	0	0	0	0		0	
##	ODIOTO	-	-	Otu11400	-	_	-	Otu	Ū	
	CSI001	0	0	0	0	0	0	004	0	
##	CSI012	0	0	0	0	0	0		0	
##	CSI022	0	0	0	0	0	0		0	
##	CSI044	0	0	0	0	0	0		0	
##	CSI055	0	0	0	0	0	0		0	
##	CSI065	0	0	0	0	0	0		0	
##	CSI076	0	0	0	0	0	0		0	
##		Otu11405	Otu11406	Otu11407	Otu11408	Otu11409	Otu11410	Otu	11411	
##	CSI001	0	0	0	0	0	0		0	
##	CSI012	0	0	0	0	0	0		0	
##	CSI022	0	0	0	0	0	0		0	
##	CSI044	0	0	0	0	0	0		0	
##	CSI055	0	0	0	0	0	0		0	
	CSI065	0	0	0	0	0	0		0	
##	CSI076	0	0	0	0	0	0		0	
##		Otu11412		Otu11414			1416 Otu1		Otu11	
	CSI001	0	0		0.0000006		0	0		0
	CSI012	0	0		0.0000006		0	0		0
	CSI022	0	0		0.0000006		0	0		0
	CSI044	0	0		0.0000006		0	0		0
	CSI055	0	0	-	0.0000006		0	0		0
	CSI065	0	0	•	0.0000006		0	0		0
##	CSI076	•	•	Otu11421	0.0000006		0 423 Otu11	•	<b>1+111</b> /	·
	CSI001	000011419	00011420	00011421		0.00000e		0	Julia	0
	CSI001	0	0	0		0.00000e		0		0
	CSI012	0	0	0		0.00000e		0		0
	CSI044	0	0	0	0	3.94314e		0		0
##	CSI055	0	0	0	•	0.00000e		0		0
##	CSI065	0	0	0	0	0.00000e		0		0
##	CSI076	0	0	0	0	0.00000e	+00	0		0
##		Otu11426	Otu11427	Otu11428	Otu11429	Otu11430	Otu11431	Otu:	11432	
##	CSI001	0	0	0	0	0	0		0	
##	CSI012	0	0	0	0	0	0		0	
##	CSI022	0	0	0	0	0	0		0	
##	CSI044	0	0	0	0	0	0		0	
##	CSI055	0	0	0	0	0	0		0	
##	CSI065	0	0	0	0	0	0		0	
##	CSI076	0	0	0	0	0	0		0	
##				Otu11435			437 Otu11		)tu114	39
	CSI001	0	0	0		0.00000e		0		0
	CSI012	0	0	0		0.00000e		0		0
	CSI022	0	0	0		0.00000e		0		0
	CSI044	0	0	0		3.94314e		0		0
	CSI055	0	0	0		0.00000e		0		0
	CSI065	0	0	0		0.00000e		0		0
	CSI076	0	0+11111	0+11442		0.00000e		0	O+11	0
##	CSI001	0	0	Otu11442		2.345326	1444 Otu1	1445	ocuil	446
	CS1001	0	0	0		0.000000		0		0
	CS1012	0	0	0		0.000000		0		0
	CSI022	0	0	0		0.000000		0		0
17	201011	0	0	0	9	3.300000		U		U

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## CSI055
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                                               0 0.000000e+00
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## CSI065
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## CSI076
                  0
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                                     0
                                               0 0.000000e+00
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##
          Otu11447 Otu11448 Otu11449 Otu11450 Otu11451 Otu11452 Otu11453
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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                                  Otu11456 Otu11457 Otu11458 Otu11459 Otu11460
##
          Otu11454 Otu11455
## CSI001
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                           0 0.000000e+00
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## CSI012
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## CSI022
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## CSI044
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                           0 4.302833e-05
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## CSI055
## CSI065
                            0 0.00000e+00
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                           0 0.000000e+00
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## CST076
          Otu11461 Otu11462 Otu11463 Otu11464 Otu11465 Otu11466 Otu11467
## CSI001
                  Λ
                           Λ
                                     Ω
                                               0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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          Otu11468 Otu11469 Otu11470 Otu11471 Otu11472 Otu11473
                                                                         Otu11474
## CSI001
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                                                                   0 0.000000e+00
## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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##
          Otu11475 Otu11476 Otu11477 Otu11478 Otu11479 Otu11480 Otu11481
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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          Otu11482 Otu11483 Otu11484 Otu11485 Otu11486 Otu11487
##
                                                                       Otu11488
                                     0
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                                                                   0 2.345326e-05
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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                                                                   0.0.000000e+00
                             Otu11490 Otu11491 Otu11492 Otu11493 Otu11494
               Otu11489
## CSI001 0.000000e+00 0.000000e+00
                                              0
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## CSI012 0.000000e+00 0.000000e+00
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		2.1515566			0	0	0	0
##		0.0000006			0	0	0	0
##		0.0000006			0	0	0	0
##		0.0000006			0	0	0	0
##	CSI076	0.0000006	e+00 0.000	0000e+00	0	0	0	0
##		Otu11495	Otu11496	Otu11	1497 Otu1:	1498 Otu1:	1499 (	Otu11500
##	CSI001	0	0	0.000000	e+00	0	0 0.000	0000e+00
##	CSI012	0	0	0.0000006	e+00	0	0 0.000	0000e+00
##	CSI022	0	0	0.0000006	e+00	0	0 0.000	0000e+00
##	CSI044	0	0	0.0000006	e+00	0	0 0.000	0000e+00
##	CSI055	0	0	0.0000006	e+00	0	0 0.000	0000e+00
##	CSI065	0	0	0.0000006	e+00	0	0 0.000	0000e+00
##	CSI076	0	0	0.0000006	e+00	0	0 0.000	0000e+00
##		Otu11501	Otu11502	Otu11503	Otu11504	Otu11505	Otu11506	Otu11507
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu11508	Otu11509	Otu11510	Otu11511	Otu11512	Otu11513	Otu11514
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	0.020.0	Otu11515	Ot.u11516	-	Otu11518	-	Otu11520	Otu11521
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	ODIOTO		Otu11523	_	-	-	-	527 Otu11528
	CSI001	0	0	0		0.00000e-		0 0
	CSI012	0	0	0		0.00000e		0 0
	CSI022	0	0	0		0.00000e		0 0
	CSI044	0	0	0		1.97157e		0 0
	CSI055	0	0	0		0.00000e		0 0
	CSI065	0	0	0		0.00000e		0 0
	CSI076	0	0	0		0.00000e		0 0
##	CDIOIO	_	_		Otu11532			-
	CSI001	00011329	0	0	0	0	0	0
		0						
	CSI012	0	0	0	0	0	0	0
	CSI022	0						
	CSI044		0	0	0	0	0	0
	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	-	_
	CSI076	0	0	0	0	0	0	0
##		UTU11536	Utu11537	Utu11538	Otu11539	Utu11540	Utu11541	Utu11542

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## CSI001
                   0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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   CSI076
##
           Otu11543 Otu11544 Otu11545
                                              Otu11546 Otu11547 Otu11548 Otu11549
## CSI001
                   0
                             0
                                       0 0.00000e+00
                                                                0
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## CSI012
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                   0
                                       0 1.724971e-05
## CSI022
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                                       0 0.000000e+00
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## CSI044
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                                       0 0.00000e+00
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## CSI055
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                                       0 0.000000e+00
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## CSI065
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## CSI076
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                                       0 0.000000e+00
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##
           Otu11550 Otu11551 Otu11552 Otu11553 Otu11554 Otu11555 Otu11556
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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           Otu11557 Otu11558 Otu11559 Otu11560 Otu11561 Otu11562 Otu11563
##
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
           Otu11564 Otu11565 Otu11566 Otu11567
                                                        Otu11568 Otu11569 Otu11570
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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                                                 0 0.000000e+00
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##
               Otu11571 Otu11572
                                        Otu11573 Otu11574 Otu11575 Otu11576
## CSI001 0.000000e+00
                                 0 0.000000e+00
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                                                          0
## CSI012 0.000000e+00
                                 0 0.00000e+00
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                                                                     0
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## CSI022 4.303111e-05
                                 0 0.00000e+00
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## CSI044 0.00000e+00
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                                 0 0.000000e+00
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## CSI055 0.000000e+00
                                 0 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
                                 0 0.00000e+00
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##
           Otu11577 Otu11578 Otu11579 Otu11580 Otu11581 Otu11582 Otu11583
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
          Ot:111584
                        Otu11585 Otu11586 Otu11587 Otu11588 Otu11589 Otu11590
                  0 0.000000e+00
## CSI001
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## CSI012
                  0 0.000000e+00
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## CSI022
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## CSI044
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                                          0
                                                    0
                                                             0
## CSI055
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
## CSI065
                  0 0.00000e+00
                                                                       0
                                                                                 0
##
  CSI076
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
          Otu11591
                        Otu11592 Otu11593
                                                0tu11594
                                                               Otu11595 Otu11596
## CSI001
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
## CSI012
                                          0 0.000000e+00 0.000000e+00
                                                                                0
                  0 3.449941e-05
## CSI022
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
                                          0 0.000000e+00 0.000000e+00
## CSI044
                  0 0.00000e+00
## CSI055
                  0 0.000000e+00
                                          0 2.151417e-05 4.302833e-05
                                                                                0
## CSI065
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
  CST076
                                                                                0
          Otu11597 Otu11598 Otu11599
                                            Otu11600 Otu11601 Otu11602 Otu11603
## CSI001
                                     0 0.000000e+00
                  0
                            0
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## CSI012
                  0
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                                     0 0.00000e+00
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## CSI022
                  0
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                                     0 0.00000e+00
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## CSI044
                  0
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                                     0 0.000000e+00
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## CSI055
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                                     0 0.000000e+00
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## CSI065
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                                     0 0.000000e+00
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## CSI076
                                     0 0.000000e+00
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          Otu11604 Otu11605 Otu11606 Otu11607 Otu11608 Otu11609
                                                                         Otu11610
                                                                   0 0.000000e+00
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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                                                                   0 0.00000e+00
## CSI065
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                                                                   0 0.000000e+00
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   CSI076
                  0
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                                     0
                                                                   0 0.00000e+00
          Otu11611 Otu11612 Otu11613 Otu11614 Otu11615 Otu11616
##
                                                                         Ot:111617
## CSI001
                  0
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                                                                   0 0.00000e+00
## CSI012
                  0
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                                                                   0 3.449941e-05
## CSI022
                  0
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## CSI044
                  Ω
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## CSI055
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## CSI065
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                                                                   0 0.000000e+00
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                                                                   0 0.000000e+00
   CSI076
          Otu11618 Otu11619 Otu11620 Otu11621 Otu11622 Otu11623
##
                                                                         Ot:111624
## CSI001
                  0
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                                                                   0 0.00000e+00
## CSI012
                  0
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                                                                   0 3.449941e-05
## CSI022
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                                                                   0 0.00000e+00
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## CSI044
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                                                                   0 0.000000e+00
##
  CSI055
                  0
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                                                                   0 0.00000e+00
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                            0
                                     0
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                                                         0
## CSI065
                                                                   0 0.00000e+00
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.000000e+00
               Otu11625 Otu11626 Otu11627 Otu11628 Otu11629 Otu11630
## CSI001 0.000000e+00
                                0
                                          0
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                                          0
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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                                          0
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                                                             0
                                                                       0
## CSI044 0.000000e+00
                                0
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```

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## CSI055 0.000000e+00
                                0
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## CSI065 0.000000e+00
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## CSI076 2.890675e-05
                                0
                                          0
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##
               Otu11631 Otu11632 Otu11633
                                                Otu11634 Otu11635 Otu11636
## CSI001 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
## CSI012 3.449941e-05
                                0
                                          0 1.724971e-05
                                                                  Ω
                                                                            0
## CSI022 0.000000e+00
                                0
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                                          0 2.151556e-05
## CSI044 0.00000e+00
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                                          0 0.00000e+00
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## CSI055 0.000000e+00
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                                          0 0.000000e+00
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## CSI065 0.000000e+00
                                          0 0.00000e+00
   CSI076 0.000000e+00
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                                          0 0.00000e+00
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##
          Otu11637 Otu11638 Otu11639
                                           Otu11640 Otu11641 Otu11642 Otu11643
## CSI001
                  0
                            0
                                     0 2.345326e-05
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## CSI012
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                  0
                                      0 1.724971e-05
## CSI022
                            0
                                      0 0.000000e+00
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## CSI044
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                                      0 0.00000e+00
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                  0
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                                      0 0.000000e+00
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## CSI055
## CSI065
                            0
                                      0 0.00000e+00
                                                             0
                                      0 0.000000e+00
                  0
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##
  CST076
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          Otu11644 Otu11645 Otu11646 Otu11647 Otu11648 Otu11649 Otu11650
## CSI001
                  Λ
                            Λ
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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          Otu11651 Otu11652 Otu11653
                                           Otu11654 Otu11655 Otu11656 Otu11657
## CSI001
                  0
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                                      0 0.000000e+00
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## CSI012
                  0
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                                      0 3.449941e-05
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## CSI022
                  0
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                                      0 0.000000e+00
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## CSI044
                  0
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                                      0 0.000000e+00
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## CSI055
                                      0 0.00000e+00
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                                      0 0.000000e+00
## CSI065
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##
                  0
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                                      0 0.00000e+00
                                                             0
                                                                       0
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##
          Otu11658 Otu11659 Otu11660 Otu11661
                                                      Otu11662 Otu11663 Otu11664
## CSI001
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
## CSI012
                  Λ
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                                               0 0.000000e+00
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## CSI022
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                                               0 4.303111e-05
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## CSI044
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                                               0 0.000000e+00
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## CSI055
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                                               0 0.00000e+00
## CSI065
                  0
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                                               0 0.00000e+00
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                  0
                                     0
                                               0 0.000000e+00
          Otu11665 Otu11666 Otu11667 Otu11668 Otu11669 Otu11670 Otu11671
##
## CSI001
                  0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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##
          Otu11672 Otu11673 Otu11674 Otu11675
                                                     Otu11676 Otu11677 Otu11678
## CSI001
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
## CSI012
                  0
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                                               0 0.00000e+00
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```

	CSI022	0	0	0	0	0 000	000e+0	^	0		0
	CS1022	0	0	0			000e+0		0		0
	CSI055	0	0	0			000e+0		0		0
##	CSI065	0	0	0			401e-0		0		0
##	CSI076	0	0	0	0		000e+0		0		0
##	CDIOTO	-	-		Otu11682				-	685	O
	CSI001	0	0	0	0	ocui.	0	0	Otuli	0	
##	CSI001	0	0	0	0		0	0		0	
##	CSI012	0	0	0	0		0	0		0	
##	CS1022	0	0	0	0		0	0		0	
##	CSI055	0	0	0	0		0	0		0	
##	CSI065	0	0	0	0		0	0		0	
##	CS1003	0	0	0	0		0	0		0	
##	CSIU/O	·	Otu11687	-	•	600	v	·	1+1116	•	
	CSI001		0		Otu11			u11690 (	JULITE	_	
##	CSI001	0		0	0.0000006					0	
		0	0	0						0	
##	CSI022	0	0	0	0.000000					0	
##	CSI044	0	0	0	0.000000					0	
	CSI055	0	0	0	0.000000					0	
##	CSI065 CSI076	0	0	0	0.000000					0	
##	021076	0	0	0	0.000000e				0+11	0	
##	GGT004				Otu11695	otu1.			Utull		
	CSI001	0	0	0	0		0	0		0	
	CSI012	0	0	0	0		0	0		0	
	CSI022	0	0	0	0		0	0		0	
	CSI044	0	0	0	0		0	0		0	
	CSI055	0	0	0	0		0	0		0	
##	CSI065	0	0	0	0		0	0		0	
##	CSI076	0 Otu11699	0	0	0	700 (	0	0	704 6	0	705
##					1/()1   1=1111	1702 し	Utull/	03 Otu11			
##	AUT VO 1									tull.	
шш	CSI001	0	0	0.000000	e+00	0		0	0	tull.	0
##	CSI012	0	0	0.0000000	e+00 e+00	0		0	0	tull.	0
##	CSI012 CSI022	0 0 0	0 0	0.0000000 0.0000000 2.151556	e+00 e+00 e-05	0 0 0		0 0 0	0 0 0	tull.	0 0
##	CSI012 CSI022 CSI044	0 0 0	0 0 0	0.0000006 0.0000006 2.151556 0.0000006	e+00 e+00 e-05 e+00	0 0 0		0 0 0 0	0 0 0	itu11	0 0 0 0
## ## ##	CSI012 CSI022 CSI044 CSI055	0 0 0 0	0 0 0 0	0.0000006 0.0000006 2.1515566 0.0000006	e+00 e+00 e-05 e+00 e+00	0 0 0 0		0 0 0 0	0 0 0 0	itu11	0 0 0 0
## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0	0 0 0 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00	0 0 0 0 0		0 0 0 0 0	0 0 0 0 0	itu11	0 0 0 0 0
## ## ## ##	CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0	0 0 0 0 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00 e+00	0 0 0 0 0	1710 0	0 0 0 0 0	0 0 0 0 0		0 0 0 0
## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0tu11708	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o+00	0 0 0 0 0		0 0 0 0 0 0 0 0 tu11711	0 0 0 0 0	.712	0 0 0 0 0
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o+00 Otu11709	0 0 0 0 0	0	0 0 0 0 0 0 0 0 0 tu11711	0 0 0 0 0	.712 0	0 0 0 0 0
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0 0 0 0 0tul1706 0	0 0 0 0 0 0 0 0 0tu11707 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00 e+00 e+00 Otu11709 0	0 0 0 0 0	0	0 0 0 0 0 0 0 0 0 tul1711	0 0 0 0 0	.712 0 0	0 0 0 0 0
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0tu11707 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00 e+00 o+00 Otu11709 0	0 0 0 0 0	0 0 0	0 0 0 0 0 0 0 0 tul1711 0 0	0 0 0 0 0	712 0 0	0 0 0 0 0
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI0012 CSI022 CSI044	0 0 0 0 0 0 0 0tu11706 0 0	0 0 0 0 0 0 0 0tu11707 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0tu11708 0 0	e+00 e+00 e-05 e+00 e+00 e+00 e+00 Otu11709 0 0	0 0 0 0 0	0 0 0	0 0 0 0 0 0 0 0 tul1711 0 0	0 0 0 0 0	712 0 0 0	0 0 0 0 0
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0tu11706 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000000 0.0000000 2.151556 0.000000 0.0000000 0.0000000 0.0000000 0tu11708 0 0	e+00 e+00 e-05 e+00 e+00 e+00 e+00 Otu11709 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0 0 0 0 0 tu11711 0 0 0	0 0 0 0 0	.712 0 0 0 0	0 0 0 0 0
## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00 e+00 e+00 Otu11709 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0 0 tu11711 0 0 0	0 0 0 0 0	712 0 0 0 0 0	0 0 0 0 0
## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0000000 0.0000000 2.151556 0.0000000 0.0000000 0.0000000 0.0000000	e+00 e+00 e-05 e+00 e+00 e+00 e+00 Otu11709 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0	0 0 0 0 0 0 0 0 tul1711 0 0 0	0 0 0 0 0 0 0 0 0 0tu11	712 0 0 0 0 0 0	0 0 0 0 0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0tul1706 0 0 0 0 0 0	0 0 0 0 0 0 0 0tul1707 0 0 0 0 0 0	0.000000000000000000000000000000000000	e+00 e+00 e-05 e+00 e+00 e+00 o-0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0	0 0 0 0 0 0 0 tul1711 0 0 0 0 0 0 tul17111	0 0 0 0 0 0 0 0 0 0tu11	.712 0 0 0 0 0 0 0 0	0 0 0 0 0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0tul1706 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tul1707 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0+00 0+00 0+00 0+00 0+00 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0 1717 0	0 0 0 0 0 0 0 0 tul1711 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0tu11	.712 0 0 0 0 0 0 0 0 719	0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0 0 0 0tul1706 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu11707 0 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0-05 0+00 0+00 0+00 0+00 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0 1717 0	0 0 0 0 0 0 0 0 tul1711 0 0 0 0 0 0 tul17118 0 0	0 0 0 0 0 0 0 0 0 0tu11	.712 0 0 0 0 0 0 0 0 719 0	0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0-05 0+00 0+00 0+00 0+00 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0 1717 0	0 0 0 0 0 0 0 0 0 tu11711 0 0 0 0 0 0 tu11718	0 0 0 0 0 0 0 0 0 0tu11	.712 0 0 0 0 0 0 0 0 .719 0 0	0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0+00 0+00 0+00 0+00 0+00 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0 0 1717 0 0 0	0 0 0 0 0 0 0 0 0 tul1711 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0tu11	712 0 0 0 0 0 0 0 719 0 0	0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0+00 0+00 0+00 0+00 0+00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0 1717 0 0 0	0 0 0 0 0 0 0 0 0 tul1711 0 0 0 0 0 0 tul1718 0 0	0 0 0 0 0 0 0 0 0 0tu11	.712 0 0 0 0 0 0 0 0 .719 0 0 0	0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0+00 0+00 0+00 0+00 0+00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 tu1:	0 0 0 0 0 0 0 1717 0 0 0 0	0 0 0 0 0 0 0 0 tul1711 0 0 0 0 tul1718 0 0 0	0 0 0 0 0 0 0 0 0 0tu11	712 0 0 0 0 0 0 0 0 719 0 0 0	0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000000000000000000000000000000000	0+00 0+00 0+00 0+00 0+00 0+00 0+00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu1:	0 0 0 0 0 0 0 1717 0 0 0 0	0 0 0 0 0 0 0 0 0 tul1711 0 0 0 0 0 0 tul1718 0 0	0 0 0 0 0 0 0 0tul1	.712 0 0 0 0 0 0 0 .719 0 0 0 0	0 0 0 0 0 0 0 0

```
## CSI001
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
## CSI012
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                    0
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                                    0
## CSI044
                             0
                                       0
                                                 0 0.000000e+00
                                                                                    0
                   0
                                                                          0
## CSI055
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                    0
## CSI065
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                    0
                             0
                                       0
                                                 0 0.00000e+00
## CSI076
           Otu11727 Otu11728 Otu11729 Otu11730 Otu11731 Otu11732 Otu11733
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI012
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                   0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                             0
## CSI055
                   0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu11734 Otu11735
                                   Otu11736 Otu11737 Otu11738 Otu11739 Otu11740
## CSI001
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI012
                   0
                             0 0.00000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI022
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI044
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI055
                   0
                             0 2.151417e-05
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI065
                             0 0.000000e+00
                                                      0
                                                                0
                                                                0
## CSI076
                   0
                             0 0.000000e+00
                                                      0
                                                                          0
           Otu11741 Otu11742 Otu11743 Otu11744 Otu11745 Otu11746 Otu11747
                   0
                             0
                                                 0
                                                           0
## CSI001
                                       0
                                                                     0
                                                                                0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI044
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
                                       0
                   0
                             0
                                                 0
                                                           0
                                                                      0
## CSI055
                                       0
                                                                                0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
##
               Otu11748 Otu11749 Otu11750 Otu11751 Otu11752 Otu11753 Otu11754
## CSI001 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI012 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI022 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI044 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI055 2.151417e-05
                                 0
                                            0
                                                      0
                                                                0
## CSI065 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI076 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
##
           Otu11755 Otu11756 Otu11757 Otu11758 Otu11759 Otu11760 Otu11761
## CSI001
                             0
                                       0
                                                 0
                                                           0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI022
                             0
                                                 0
                                                                      0
                                                                                0
                   0
                                       0
                                                           0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
## CSI044
                                                                                0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                                                0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu11762 Otu11763 Otu11764 Otu11765 Otu11766 Otu11767
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                             0
## CSI044
                   0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
                             0
## CSI065
                   0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
```

##	CSI076	0	0	0	0	0	0	0
##	CDIOTO		-	-		-	Otu11774 Otu	•
	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	Ö
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu11776	Otu11777	Otu11778	Otu11779	Otu11780	Otu11781 Otu	11782
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu11783	Otu11784	Otu11785	Otu11786	Otu11787	Otu11788	0tu11789
##	CSI001	0	0	0	0	0	0.000000e+00	0
##	CSI012	0	0	0	0	0	0.000000e+00	0
##	CSI022	0	0	0	0	0	0.000000e+00	0
	CSI044	0	0	0	0		0.000000e+00	
	CSI055	0	0	0	0	0	0.000000e+00	0
	CSI065	0	0	0	0		0.000000e+00	
	CSI076	0	0	0	0		0.000000e+00	
##	~~~~	Otu11790					1794 Otu11795	
	CSI001	0		0.0000006		0	0 0	
##	CSI012	0		0.0000006		0	0 0	
##	CSI022	0		0.0000006		0	0 0	•
##	CSI044	0		0.0000006		0	0 0	•
##	CSI055	0	_	0.0000006		0	0 0	•
##	CSI065 CSI076	0	0	0.0000006		0	0 0	
##	CSIUIO	-				-	Otu11802 Otu	•
##	CSI001	000111797	000111790	000111799	00011000	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
	CSI044	0	0	0	0	0	0	0
	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	0	0
	CSI076	0	0	0	0	0	0	0
##		Otu11804	Otu11805	Otu11806	Otu11807	Otu11808	Otu11809 Otu	11810
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu11811	Otu11812	Otu11813	Otu11814	Otu11815	Otu11816	Otu11817
	CSI001	0	0	0	0		0.000000e+00	
	CSI012	0	0	0	0		0.000000e+00	
	CSI022	0	0	0	0		0.000000e+00	
##	CSI044	0	0	0	0	0	0.00000e+00	0

##	CSI055	0	0	0	0	0	0.000000e	+00	0
##	CSI065	0	0	0	0	0	0.000000e	+00	0
##	CSI076	0	0	0	0	0	0.00000e	+00	0
##		Otu11818	Otu11819	Otu11820	Otu11821	Otu11822	Otu11823 (	Otu11824	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##	~~~·	Otu11825	Otu11826	Otu11827		Otu11829	Otu11830 (		
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065 CSI076	0	0	0	0	0	0	0	
##	CSIU/O	·	Otu11833	•	•	·	Otu11837 (	·	
	CSI001	0	0	0	0.0011033	0 0	0	0	
	CSI012	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu11839	Otu11840	Otu11841	Otu11842	Otu11843	Otu118	44 Otu1184	5
##	CSI001	0	0	0	0	0	0.0000e+	00	0
##	CSI012	0	0	0	0	0	0.00000e+	00	0
##	CSI022	0	0	0	0	0	0.00000e+	00	0
##	CSI044			•		^	0 00000		^
##		0	0	0	0	0	0.00000e+	00	0
	CSI055	0	0	0	0		0.00000e+0		0
##	CSI055 CSI065	-			•	0		00	-
		0 0	0	0 0	0 0	0 0	0.00000e+0 7.56401e-0 0.00000e+0	00 05 00	0
## ## ##	CSI065 CSI076	0 0 0 0 0tu11846	0 0 0 0tu11847	0 0 0 0 0tu11848	0 0 0 0 0tu11849	0 0 0 0tu11850	0.00000e+0 7.56401e-0 0.00000e+0 0tu11851	00 05 00 0tu11852	0
## ## ## ##	CSI065 CSI076 CSI001	0 0 0 0 0tu11846 0	0 0 0 0tu11847 0	0 0 0 0 0tu11848	0 0 0 0 0tu11849 0	0 0 0 0 0tu11850 0	0.00000e+0 7.56401e-0 0.00000e+0 0tu11851 0	00 05 00 0tu11852 0	0
## ## ## ##	CSI065 CSI076 CSI001 CSI012	0 0 0 0 0tu11846 0	0 0 0 0tu11847 0	0 0 0 0 0tu11848 0	0 0 0 0 0tu11849 0	0 0 0 0tu11850 0	0.00000e+0 7.56401e-0.00000e+0 0tu11851 0 0	00 05 00 0tu11852 0	0
## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022	0 0 0 0 0tu11846 0 0	0 0 0 0tu11847 0 0	0 0 0 0 0tu11848 0 0	0 0 0 0 0tu11849 0 0	0 0 0 0 0tu11850 0 0	0.00000e+ 7.56401e- 0.00000e+ 0tu11851 ( 0 0	00 05 00 00 0tu11852 0 0	0
## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044	0 0 0 0 0tul1846 0 0	0 0 0 0 0tul1847 0 0 0	0 0 0 0 0tu11848 0 0 0	0 0 0 0 0 0tul1849 0 0 0	0 0 0 0 0tul1850 0 0 0	0.00000e+ 7.56401e- 0.00000e+ 0tu11851 0 0 0	00 05 00 00 0tu11852 0 0 0	0
## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0tul1846 0 0 0	0 0 0 0 0tul1847 0 0 0 0	0 0 0 0 0tul1848 0 0 0	0 0 0 0 0tu11849 0 0 0	0 0 0 0 0tu11850 0 0 0	0.00000e+ 7.56401e- 0.00000e+ 0tu11851 ( 0 0 0 0	00 05 00 0tu11852 0 0 0 0	0
## ## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0tu11846 0 0 0 0	0 0 0 0 0tu11847 0 0 0 0	0 0 0 0 0tu11848 0 0 0 0	0 0 0 0 0tu11849 0 0 0 0	0 0 0 0 0tu11850 0 0 0 0	0.00000e+( 7.56401e-( 0.00000e+( 0tu11851 ( 0 0 0 0 0 0 0 0	00 05 00 0tu11852 0 0 0 0	0
## ## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0tu11846 0 0 0 0	0 0 0 0 0tu11847 0 0 0 0 0	0 0 0 0 0tu11848 0 0 0 0 0	0 0 0 0 0tu11849 0 0 0 0	0 0 0 0 0tu11850 0 0 0 0	0.00000e+( 7.56401e-( 0.00000e+( 0tu11851 ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 05 00 0tu11852 0 0 0 0 0	0
## ## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0tu11846 0 0 0 0 0 0 0 0 0 0	0 0 0 0tu11847 0 0 0 0 0 0 0 0tu11854	0 0 0 0 0tu11848 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tu11849 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tul1850 0 0 0 0 0 0 0 0 0 0	0.00000e+0 7.56401e-0.00000e+0 0tu11851 0 0 0 0 0 0 0 0 0 0 tu11858 0	00 05 00 00 00 00 0 0 0 0 0 0	0
## ## ## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tul1847 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11850 Otu11850 O O O O Otu11857	0.00000e+ 7.56401e- 0.00000e+ 0tu11851 ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 05 00 00 00 00 0 0 0 0 0 0 0 0 0 0 0	0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0tul1846 0 0 0 0 0 0 0tul1853 0	0 0 0 0 0tul1847 0 0 0 0 0 0tul1854 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tul1850 0 0 0 0 0 0tul1857 0	0.00000e+( 7.56401e-( 0.00000e+( 0tu11851 ( 0 0 0 0 0 0 0 0 0tu11858 ( 0 0	00 05 00 00 00 0 0 0 0 0 0 0 0 0 0 0 0	0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI0012 CSI0022	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tul1847 0 0 0 0 0 0tul1854 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11850 Otu11850 O O O O Otu11857 O O	0.00000e+( 7.56401e-( 0.00000e+( 0tu11851 ( 0 0 0 0 0 0 0 0 0tu11858 ( 0 0 0 0	00 05 00 00 00 00 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI0012 CSI0012 CSI022 CSI044	0 0 0 0 0tul1846 0 0 0 0 0 0 0tul1853 0	0 0 0 0 0tul1847 0 0 0 0 0 0tul1854 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tul1850 0 0 0 0 0 0tul1857 0	0.00000e+( 7.56401e-( 0.00000e+( 0tu11851 ( 0 0 0 0 0 0 0 0 0tu11858 ( 0 0	00 05 00 00 00 0 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	Otu11846 Otu11846 O O O O O O O O O O O O O	0 0 0 0 0tu11847 0 0 0 0 0tu11854 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11850 Otu11850 O O O O O O O O O O O O O O O O O O O	0.00000e+( 7.56401e-( 0.00000e+( 0tu11851 ( 0 0 0 0 0 0 0 0 0 0tu11858 ( 0 0 0 0	00 05 00 00 00 00 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	Otu11846 Otu11846 O O O O Otu11853 O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11848 Otu11848 O O O O O Otu11855 O O O O	Otu11849 Otu11849 O O O O O O O O O O O O O O O O O O O	Otu11850 Otu11850 O O O O O O O O O O O O O O O O O O O	0.00000e++ 7.56401e 0.00000e++ 0tu11851 ( 0 0 0 0 0 0 0 0 0 0tu11858 ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 05 00 00 0tu11852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	Otu11846  Otu11846  O  O  O  O  O  O  O  O  O  O  O  O  O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11848 Otu11848 O O O O Otu11855 O O O O O O	Otu11849 Otu11849 O O O O O O O O O O O O O O O O O O O	Otu11850 Otu11850 O O O O O O O O O O O O O O O O O O O	0.00000e++ 7.56401e 0.00000e++ 0tu11851 ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 05 00 0tu11852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	Otu11846  Otu11846  O  O  O  O  O  O  O  O  O  O  O  O  O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11848 Otu11848 O O O O Otu11855 O O O O O O	Otu11849 Otu11849 O O O O O O O O O O O O O O O O O O O	Otu11850 Otu11850 O O O O O O O O O O O O O O O O O O O	0.00000e++ 7.56401e 0.00000e++ 0tu11851 ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 05 00 0tu11852 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
######################################	CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI065	Otul1846 O Otul1853 O Otul1853 O O Otul1853 O O O O O O O O O O O O O O O O O O O	0 0 0 0 0tul1847 0 0 0 0 0tul1854 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0tul1850 0 0 0 0 0tul1857 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00000e++ 7.56401e 0.00000e++ 0tu11851 ( 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00 05 00 00 00 00 00 00 00 00	0

```
## CSI022
                   0
                             0
                                                                                0
## CST044
                   0
                             0
                                                  0
                                                            0
                                                                      0
                                                                                0
                                       0
## CSI055
                   0
                             0
                                                  0
                                                            0
                                                                                0
                                                  0
                                                            0
                                                                                0
## CSI065
                   Ω
                             0
                                        Λ
                                                                      0
##
   CSI076
                   0
                             0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           0tu11867
                          Otu11868 Otu11869 Otu11870 Otu11871 Otu11872 Otu11873
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
## CSI001
                                                                           0
## CSI012
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
## CSI022
                   0 4.303111e-05
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
                                            0
                                                      0
                                                                 0
                                                                                     0
## CSI044
                   0 0.00000e+00
                                                                           Λ
   CSI055
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                                     0
                                            0
## CSI065
                   0 0.000000e+00
                                                      0
                                                                0
                                                                           0
                                                                                     0
   CSI076
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                           0
           Otu11874 Otu11875 Otu11876 Otu11877 Otu11878 Otu11879 Otu11880
##
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI012
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI022
                   0
                             0
                                                  0
                                                            0
                                                                      0
                                                                                0
                                       0
## CSI044
                   0
                             0
                                       0
                                                            0
                                                                      0
                                                                                0
## CSI055
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI065
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
   CST076
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           Otu11881 Otu11882 Otu11883
                                              Otu11884 Otu11885 Otu11886
## CSI001
                                       0 0.000000e+00
                             0
                                                                0
                   0
                                                                           0
## CSI012
                   0
                             0
                                       0 0.00000e+00
                                                                0
                                                                           0
                             0
                                                                0
## CSI022
                   0
                                       0 0.00000e+00
                                                                           0
## CSI044
                   0
                             0
                                       0 0.00000e+00
                                                                0
                                                                           0
## CSI055
                   0
                             0
                                       0 4.302833e-05
                                                                 0
                                                                           0
   CSI065
                             0
                                       0 0.000000e+00
                                                                 0
                                                                           0
##
                   0
                             0
                                                                0
                                                                           0
##
   CSI076
                   0
                                       0 0.000000e+00
                Otu11887 Otu11888 Otu11889 Otu11890 Otu11891 Otu11892 Otu11893
##
## CSI001 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
   CSI012 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
   CSI022 4.303111e-05
                                  0
                                            0
                                                      0
                                                                 0
                                                                           0
                                                                                     0
## CSI044 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
## CSI055 0.000000e+00
                                  0
                                            0
                                                      0
                                                                 0
                                                                           0
                                                                                     0
  CSI065 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
## CSI076 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
##
           Otu11894 Otu11895 Otu11896 Otu11897 Otu11898 Otu11899 Otu11900
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI012
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI022
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI044
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI055
                             0
                                                  0
                   0
                                       0
                                                            0
                                                                      0
                                                                                0
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI065
## CSI076
                             0
                                        0
                                                  0
                                                            0
                                                                                0
           Otu11901 Otu11902 Otu11903 Otu11904 Otu11905 Otu11906 Otu11907
##
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI012
                                                  0
                                                            0
                                                                      0
                                                                                0
                   0
                             0
                                       0
## CSI022
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI044
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI055
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                      0
                                                                                0
                             0
## CSI065
                   0
                                        0
                                                  0
                                                            0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           Otu11908 Otu11909 Otu11910 Otu11911 Otu11912 Otu11913 Otu11914
```

	~~~~		•	•					•
	CSI001	0	0	0	0	C			0
	CSI012	0	0	0	0	C			0
##	CSI022	0	0	0	0	C			0
##	CSI044	0	0	0	0	C			0
##	CSI055	0	0	0	0	C			0
##	CSI065	0	0	0	0	C			0
##	CSI076	0	0	0	0	C	-		0
##		Otu11915	Otu11916 C		Otu11918	Otu11919	Otu11920	Otu1	1921
##	CSI001	0	0	0	0	C	0		0
##	CSI012	0	0	0	0	C	0		0
##	CSI022	0	0	0	0	C	0		0
##	CSI044	0	0	0	0	C	0		0
##	CSI055	0	0	0	0	C	0		0
##	CSI065	0	0	0	0	C	0		0
##	CSI076	0	0	0	0	C	0		0
##		Otu11922	Otu11923 C	tu11924	Otu11925	Otu11926	Otu11927	Otu1	1928
##	CSI001	0	0	0	0	C	0		0
##	CSI012	0	0	0	0	C	0		0
##	CSI022	0	0	0	0	C	0		0
##	CSI044	0	0	0	0	C	0		0
##	CSI055	0	0	0	0	C	0		0
##	CSI065	0	0	0	0	C	0		0
##	CSI076	0	0	0	0	C	0		0
##		Otu11929	Otu11930 C	tu11931	Otu11932	Otu11933	Otu11934	Otu1	1935
##	CSI001	0	0	0	0	C	0		0
##	CSI012	0	0	0	0	C	0		0
##	CSI022	0	0	0	0	C	0		0
##	CSI044	0	0	0	0	C	0		0
##	CSI055	0	0	0	0	C	0		0
##	CSI065	0	0	0	0	C	0		0
##	CSI076	0	0	0	0	C	0		0
##		Otu11936	Otu119	937 Otu11	1938 Otu11	1939 Otu1	1940 Otu1	1941	Otu11942
##	CSI001	0	0.000000e+		0	0	0	0	0
##	CSI012	0	0.000000e+		0	0	0	0	0
##	CSI022	0	0.000000e+	-00	0	0	0	0	0
##	CSI044	0	0.000000e+	-00	0	0	0	0	0
##	CSI055	0	0.000000e+		0	0	0	0	0
	CSI065		0.000000e+		0	0	0	0	0
	CSI076		0.000000e+		0	0	0	0	0
##			Otu11944 C		0tu11		1947 Otu1		Ot.1111949
	CSI001	0	0		0.0000006		0	0	0
	CSI012	0	0		0.0000006		0	0	0
	CSI022	0	0		0.0000000		0	0	0
	CSI044	0	0		0.0000006		0	0	0
	CSI055	0	0		4.3028336		0	0	0
	CSI065	0	0		0.0000006		0	0	0
	CSI076	0	0		0.0000000		0	0	0
##	ODIOTO		Otu11951 C				-	-	_
	CSI001	00011950	0	0	00011900	00011934		Jour	0
	CSI001	0	0	0	0	C			0
	CS1012	0	0	0	0	C			0
	CS1022	0	0	0	0	C			0
	CSI044	0	0	0	0	C			0
	CS1055	0	0	0	0	C			0
##	001000	U	U	U	U	C	U		U

```
## CSI076
                                     0
                                               0
                                                        0
##
              Otu11957 Otu11958 Otu11959 Otu11960 Otu11961 Otu11962 Otu11963
## CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI012 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI044 0.00000e+00
                                0
                                         0
                                                   0
                                                             Λ
                                                                                0
                                                                      0
## CSI055 0.000000e+00
                                         0
## CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                0
## CSI076 0.000000e+00
                                0
                                         0
                                                   0
                                                                      0
                                                                                O
                                      Otu11966 Otu11967
##
          Otu11964
                        Otu11965
                                                              Otu11968 Otu11969
## CSI001
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                                                       0 0.000000e+00
## CSI012
                  0 0.000000e+00 3.449941e-05
                                                                               0
## CSI022
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
                  0 0.000000e+00 0.000000e+00
## CSI044
                                                       0 0.000000e+00
## CSI055
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
## CSI065
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
##
  CST076
          Otu11970 Otu11971 Otu11972 Otu11973 Otu11974 Otu11975 Otu11976
## CST001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI022
                  Ω
                           0
                                     0
                                               0
                                                        Λ
                                                                  0
                                                                            0
## CSI044
                  0
                           0
                                                                            0
## CSI055
                           0
                                                        0
                  Λ
                                     0
                                               0
                                                                  0
                                                                            0
## CSI065
                            0
                  0
                                     0
                                                         0
## CSI076
                  0
                            0
                                     0
                                               0
                                                                  0
          Otu11977 Otu11978 Otu11979 Otu11980 Otu11981 Otu11982
                                                                        Otu11983
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI012
                           0
                                                        0
                  0
                                     0
                                               0
                                                                  0 0.00000e+00
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI044
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                                               0
   CSI076
                  0
                            0
                                     0
                                                        0
                                                                  0 0.00000e+00
          Otu11984 Otu11985 Otu11986 Otu11987 Otu11988 Otu11989 Otu11990
##
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI022
                  0
                           0
                                     0
                                                                            0
## CSI044
                  Ω
                           0
                                     0
                                               0
                                                        Λ
                                                                  0
                                                                            0
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
## CSI065
                  Ω
                           0
                                     0
                                               0
                                                                  0
                            0
                                     0
  CSI076
                  0
                                               0
          Otu11991 Otu11992 Otu11993
                                           Otu11994 Otu11995 Otu11996 Otu11997
##
## CSI001
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                      Ω
                           0
                                                             0
                                                                      0
                                                                                0
## CSI012
                  0
                                     0 0.000000e+00
                           0
                                                             0
## CSI022
                  0
                                     0 4.303111e-05
                                                                                0
## CSI044
                  0
                           0
                                                             0
                                                                      0
                                                                                0
                                     0 0.00000e+00
##
  CSI055
                  0
                           0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
                  0
                            0
                                                             0
## CSI065
                                     0 0.000000e+00
                                                                                0
   CSI076
                  0
                           0
                                   0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
##
          Otu11998 Otu11999
                                 Otu12000 Otu12001 Otu12002
                                                                   Otu12003
## CSI001
                  0
                           0 0.000000e+00
                                                   0
                                                             0 4.690652e-05
                                                   0
## CSI012
                  0
                           0 0.000000e+00
                                                             0 0.00000e+00
## CSI022
                  0
                           0 0.000000e+00
                                                   0
                                                             0 0.000000e+00
## CSI044
                  0
                           0 0.000000e+00
                                                   0
                                                             0 0.000000e+00
```

	CSI055 CSI065	0		0.000000		0		0000e+00 0000e+00	
##	CSI076	0		0.000000		0		0000e+00	
##	ODIOTO	Otu12004						2009 Otu120	)10
	CSI001		0.0000000		0	0	0	0	0
##	CSI012		0.0000000		0	0	0	0	0
##	CSI022		0.000000		0	0	0	0	0
##	CSI044	0	0.0000006	e+00	0	0	0	0	0
##	CSI055	0	0.0000006	e+00	0	0	0	0	0
##	CSI065	0	0.0000000	e+00	0	0	0	0	0
##	CSI076	0	0.000000	e+00	0	0	0	0	0
##		Otu12011	Otu12012	Otu12013	Otu12014	Otu12015	Otu12016	Otu12017	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##	GGT 004				Otu12021				
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022 CSI044	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##	ODIOTO	-	-	•	Otu12028	•	-	ū	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu12032	Otu12033	Otu12034	Otu12035	Otu12036	Otu12037	Otu12038	
##	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055	0	0	0	0	0	0	0	
	CSI065	0	0	0	0	0	0	0	
	CSI076	0+10020	0+10040	0+12041	0 0tu12042	0+12042	0+::12044	0+112045	
##	CSI001	0 0 0	00012040	00012041	00012042	00012043	00012044	0 0 0	
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055	0	0	0	0	0	0	0	
	CSI065	0	0	0	0	0	0	0	
	CSI076	0	0	0	0	0	0	0	
##			Otu12047	Otu12048	Otu12049	Otu12050	Otu12051	0tu12052	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	

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##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065 CSI076	0	0	0	0	0	0	0
##	CSTUTO	0 Otu12053	0 0tu12054	0 0tu12055	0 0tu12056	0 0tu12057	ŭ	0 tu12059
##	CSI001			0.0012055	0 0 0	0 0 0 0	0 00012036	
##	CSI001	0	0	0	0	0	0	0 0
##	CS1012	0	0	0	0	0	0	0
##	CS1022	0	0	0	0	0	0	0
##	CS1044 CS1055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	CDIOTO	Otu12060	Otu12061	Otu12062	Otu12063	Otu12064	0tu120	ŭ
##	CSI001	0	0	00012002	0	00012004	0.000000e+	
##	CSI012	0	0	0	0	0	0.000000e+	
##	CSI012	0	0	0	0	0	0.000000e+	
##	CSI044	0	0	0	0	0	0.000000e+	
##	CSI055	0	0	0	0	0	2.151417e-	
##	CSI065	0	0	0	0	0	0.000000e+	
##	CSI076	0	0	0	0	0	0.000000e+	
##	001010	Otu12067	Otu12068	Otu12069	Otu12070	Otu12071	Otu12072 O	
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu12074	Otu1	2075 Otu12	2076 Otu12	2077 Otu1	2078 Otu120	79 Otu12080
##	CSI001	0	0.0000000	e+00	0	0	0	0 0
##	CSI012	0	0.000000	e+00	0	0	0	0 0
##	CSI022	0	0.0000000	e+00	0	0	0	0 0
##	CSI044	0	0.0000000	e+00	0	0	0	0 0
##	CSI055	0	0.000000	e+00	0	0	0	0 0
##	CSI065	0	0.000000		0	0	0	0 0
##	CSI076	0	0.000000		0	0	0	0 0
##		Otu12		Otu12082 (				0tu12086
		0.000000			0	0		000000e+00
		3.4499416			0	0		000000e+00
		0.000000			0	0		000000e+00 000000e+00
		0.0000000			0	0		000000e+00
		0.0000000			0	0		000000e+00
		0.0000000			0	0		781349e-05
##	OBIOTO						Otu12092 O	
	CSI001	0	0	0	0 0 0	0	0	0
	CSI012	0	0	0	0	0	0	0
	CSI022	0	0	0	0	0	0	0
	CSI044	0	0	0	0	0	0	0
	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	0	0
	CSI076	0	0	0	0	0	0	0
##		Otu12094	Otu1	2095 Otu12	2096 Otu12	2097 Otu1	2098 Otu120	99 Otu12100

	CSI001		0.000000e+		0		0		0		0		0
##	CSI012	0	0.000000e+		0		0		0		0		0
##	CSI022	0	0.000000e+		0		0		0		0		0
##	CSI044	0	0.000000e+		0		0		0		0		0
##	CSI055	0	0.000000e+	00	0		0		0		0		0
##	CSI065	0	0.000000e+	00	0		0		0		0		0
##	CSI076	0	0.000000e+	00	0		0		0		0		0
##		Otu12101	Otu12102 O	tu12103	Otu1	12104	Otu:	L2105	Otu1	2106	Otu1	2107	
##	CSI001	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI022	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
##	CSI076	0	0	0		0		0		0		0	
##		Otu12108	Otu12109	Otu12	2110	Otu12	2111	C	tu12	2112 (	)tu12	2113	
##	CSI001	0		.0000006				0.000				0	
##	CSI012	0		.0000006			0	0.000				0	
##	CSI022	0		.0000006			0	0.000				0	
##	CSI044	0		.0000006			0	0.000				0	
##	CSI055	0		.0000006			0	0.000				0	
##	CSI065	0		.0000006			0	0.000				0	
##	CSI076	0		.0000006			•	0.000				0	
##	ODIOTO	-		tu12116		19117					Ω±111	•	
##	CSI001	0	0	0	ocus	0	o cu.	0	ocui	0	ocui	0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI012	0	0	0		0		0		0		0	
##	CSI044	0	0	0		0		0		0		0	
##	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	
##	CSI076	0	0	0		0		0		0		0	
##	CDIOIO	Otu12121	-	0 22 Otu12	1112	-	2124	-	1125	Otu12	2126	Otu12:	107
##	CSI001		0.000000e+		0	Utuli	0	Utuli	0	Utul	0	Utu12.	0
##	CSI001	0	0.000000e+				0				0		0
##	CS1012	_	0.000000e+		0				0				
##	CS1022 CSI044	0	0.000000e+		0		0		0		0		0
##	CS1044 CS1055		0.000000e+		0		0						0
		0			0				0		0		
	CSI065		3.782005e-		0		0		0		0		0
	CSI076		0.000000e+ 0tu12129 0		0	10121	0	10120	0	0122	0	0124	0
##	CCT OO 1				otu		otu.		otui		otui		
	CSI001	0	0	0		0		0		0		0	
	CSI012	0	0	0		0		0		0		0	
	CSI022	0	0	0		0		0		0		0	
	CSI044	0	0	0		0		0		0		0	
	CSI055	0	0	0		0		0		0		0	
	CSI065	0	0	0		0		0		0		0	
	CSI076	0	0	0		0	_	0		0		0	
##	<b>GGT</b> • • •		Otu12136 O		Utu1		Utu:		Utu1		Utu1		
	CSI001	0	0	0		0		0		0		0	
	CSI012	0	0	0		0		0		0		0	
	CSI022	0	0	0		0		0		0		0	
	CSI044	0	0	0		0		0		0		0	
	CSI055	0	0	0		0		0		0		0	
##	CSI065	0	0	0		0		0		0		0	

```
## CSI076
                 0
                           0
                                    0
                                              0
                                                        0
##
          Otu12142 Otu12143 Otu12144 Otu12145 Otu12146 Otu12147 Otu12148
## CSI001
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI012
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI022
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI044
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
                           0
## CSI055
                                     0
                                                                           0
## CSI065
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI076
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
##
          Otu12149 Otu12150 Otu12151 Otu12152
                                                     Otu12153 Otu12154 Otu12155
## CSI001
                 0
                           0
                                     0
                                              0 0.00000e+00
## CSI012
                           0
                                     0
                                                                      0
                                                                               0
                  0
                                              0 0.00000e+00
## CSI022
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
                           0
## CSI044
                  0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
## CSI055
                 0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
## CSI065
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                     0
## CSI076
          Otu12156
                        Otu12157
                                      Otu12158 Otu12159 Otu12160 Otu12161
                 0 0.000000e+00 2.345326e-05
## CST001
                                                       0
                                                                0
                                                                          0
## CSI012
                 0 0.000000e+00 0.000000e+00
                                                       0
                                                                0
                                                                          0
## CSI022
                 0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                0
                                                                          0
## CSI044
                 0 0.000000e+00 0.000000e+00
                                                       0
                                                                0
                 0 0.000000e+00 0.000000e+00
                                                                Ω
## CSI055
                                                       0
                                                                          0
                 0 0.000000e+00 0.000000e+00
                                                                0
## CSI065
                                                       0
                                                                          0
                                                                Λ
## CSI076
                  0 0.000000e+00 0.000000e+00
                                                       Ω
          Otu12162 Otu12163 Otu12164
                                          Otu12165 Otu12166 Otu12167
## CSI001
                 0
                           0
                                    0 0.000000e+00
                                                            0
                                                                      0
## CSI012
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
## CSI022
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
## CSI044
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
## CSI055
                 0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
## CSI065
                 0
                           0
                                     0 0.000000e+00
                                                            0
                 0
                           0
                                     0 2.890675e-05
                                                            0
                                                                      0
              Otu12168 Otu12169 Otu12170 Otu12171
##
                                                       Otu12172 Otu12173
## CSI001 0.000000e+00
                               0
                                         0
                                              0 0.00000e+00
                                                                         0
## CSI012 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                         0
## CSI022 2.151556e-05
                               0
                                         0
                                                  0 0.00000e+00
## CSI044 0.00000e+00
                               0
                                         Λ
                                                  0 0.00000e+00
                                                                         0
  CSI055 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
  CSI065 0.000000e+00
                               0
                                         Λ
                                                  0 7.56401e-05
   CSI076 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
##
              Otu12174 Otu12175
                                      Otu12176 Otu12177 Otu12178 Otu12179
                               0 0.000000e+00
## CSI001 0.000000e+00
                                                       0
                                                                0
                                                                          Ω
                                                       0
                                                                0
## CSI012 0.000000e+00
                               0 0.000000e+00
                                                                          0
## CSI022 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
## CSI044 0.000000e+00
                               0 0.000000e+00
                                                                0
                                                                          0
                                                       0
   CSI055 2.151417e-05
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
                                                                0
   CSI065 0.000000e+00
                               0 0.000000e+00
                                                       0
   CSI076 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
          Otu12180 Otu12181 Otu12182 Otu12183 Otu12184 Otu12185 Otu12186
## CSI001
                 0
                           0
                                     0
                                              0
                                                        0
                                                                           0
                                                                 0
                           0
                                     0
                                                                 0
## CSI012
                  0
                                              0
                                                        0
                                                                           0
## CSI022
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI044
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
```

##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu12187	Otu12188	Otu12189	Otu12190	Otu12191	Otu12192	Otu12193
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##			Otu12195			Otu12198	Otu12199	Otu12200
##	CSI001	0	0	0	0	0	0	0.000000e+00
##	CSI012	0	0	0	0	0	0	1.724971e-05
##	CSI022	0	0	0	0	0	0	0.000000e+00
##	CSI044	0	0	0	0	0	0	0.000000e+00
##	CSI055	0	0	0	0	0	0	0.000000e+00
##	CSI065	0	0	0	0	0	0	0.000000e+00
##	CSI076	0	0	0	0	0	0	
##	~~~~·		Otu12202					206 Otu12207
	CSI001	0	0		0.00000e+		0	0 0
	CSI012	0	0		0.00000e+		0	0 0
	CSI022	0	0		0.00000e+		0	0 0
	CSI044	0	0		3.94314e-		0	0 0
	CSI055	0	0		0.00000e+		0	0 0
##	CSI065	0	0		0.00000e+		0	0 0
##	CSI076	0tu12208	0tu12209		0.00000e+		•	•
	CSI001	0	0 0 0	0	0	0	0	0
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	0020.0	-	215 Otu122	216 01	tu12217 Ot	:u12218 Ot	tu12219 Ot	tu12220
##	CSI001	0.00000e	+00	0 0.0000		0	0	0
##	CSI012	0.00000e	+00	0 1.7249	971e-05	0	0	0
##	CSI022	0.00000e	+00	0 0.0000	000e+00	0	0	0
##	CSI044	0.00000e	+00	0 0.0000	000e+00	0	0	0
##	CSI055	0.00000e	+00	0 0.0000	000e+00	0	0	0
##	CSI065	7.56401e	-05	0 0.0000	000e+00	0	0	0
##	CSI076	0.00000e	+00	0 0.0000	000e+00	0	0	0
##		Otu12221	Otu12222	Otu12223	Otu12224	Otu12225	Otu12226	Otu12227
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
	002000							
##	CSI076	0	0	0	0	0	0	0
## ##		-	_	-	0 Otu12231		-	-
## ##		-	_	-	_		-	-

	~~~~		•			•	•	•	
	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##	CCT OO 1	Otu12235	Otu12236	Otu12237		Otu12239	Otu12240	Otu12241	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022 CSI044	0	0	0	0	0	0	0	
##	CS1044 CS1055	0	0	0	0	0	0	0	
##	CS1055	0	0	0	0	0	0	0	
##	CS1005	0	0	0	0	0	0	0	
##	CSIUIO	-	Otu12243	Otu12244	Otu12	-	-	-	2/0
##	CSI001	00012242	00012243		0.0000006		2240 Utur. 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0
##	CSI001	0	0		0.0000000		0	0	0
##	CSI012	0	0	0	0.0000000		0	0	0
##	CSI044	0	0	0	0.0000000		0	0	0
##	CSI055	0	0	0			0	0	0
##	CSI065	0	0	0			0	0	0
##	CSI076	0	0	0	0.0000000		0	0	0
##	001010	Otu12249	Otu12250	•	Otu12252		-	•	Ŭ
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu12256	Otu12257	Otu12258	Otu12259	Otu12260	Otu12261	Otu12262	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu12263	Otu12264	Otu12265	Otu12266	Otu12267	Otu12268	Otu12269	
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055	0	0	0	0	0	0	0	
	CSI065	0	0	0	0	0	0	0	
	CSI076	0	0 10074	0 10070	0	0 40074	0 40075	0	
##	GGT 004				Otu12273				
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055 CSI065	0	0	0	0	0	0	0	
	CS1065	0	0	0	0	0	0	0	
##	OPIOIG	•	_	•	Otu12280	-	ū	_	
##		JULIZZII	JULI 12210	06412219	Jtu12200	Julizzol	Jtu12202	Jul 12203	

```
## CSI001
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
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                                                                               0
  CSI022
                   0
                             0
                                                                               0
   CSI044
                   0
                             0
                                       0
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                                                                     0
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##
##
   CSI055
                   0
                             0
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                             0
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##
   CSI065
                   0
                                       0
                                                                     0
                             0
                                       0
   CSI076
                                                                               0
                                                            Otu12288 Otu12289
##
               Otu12284 Otu12285 Otu12286 Otu12287
   CSI001 4.690652e-05
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
                                 0
                                           0
   CSI012 0.000000e+00
                                                     0 0.000000e+00
                                                                              Λ
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
                                                                              0
   CSI044 0.000000e+00
                                 0
                                           0
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                                                     0 0.00000e+00
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0 0.000000e+00
                                                                              0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0 0.00000e+00
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0 0.000000e+00
                                                                              0
##
           Otu12290 Otu12291 Otu12292 Otu12293 Otu12294 Otu12295 Otu12296
## CSI001
                             0
                                                 0
                                                                     0
                   0
                                       0
                                                           0
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## CSI012
                             0
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## CSI022
                             0
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## CSI044
                   0
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##
  CSI055
                   0
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  CSI065
                             0
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                   0
                             0
                                       0
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                                                                     0
##
  CSI076
                                                           0
                                                                               0
           Otu12297 Otu12298 Otu12299 Otu12300 Otu12301
##
                                                                  0tu12302
## CSI001
                                                           0 2.345326e-05
                   0
                             0
                                       0
                                                 0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                             0
                                                 0
##
   CSI044
                   0
                                       0
                                                           0 0.00000e+00
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
##
##
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
##
   CSI076
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
##
               Otu12303 Otu12304 Otu12305 Otu12306 Otu12307 Otu12308 Otu12309
   CSI001 2.345326e-05
                                 0
                                           0
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                                                               0
                                                                          0
                                                                                    0
   CSI012 0.000000e+00
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   CSI022 0.000000e+00
                                 0
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   CSI044 0.000000e+00
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   CSI055 0.000000e+00
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  CSI065 0.000000e+00
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                                                                Λ
                                                                          0
                                                                                    O
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                                          0
                                                                                    0
##
           Otu12310 Otu12311 Otu12312 Otu12313 Otu12314
                                                                  Otu12315 Otu12316
                             0
                                                           0 0.000000e+00
## CSI001
                   0
                                       0
                                                 0
## CSI012
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
                   0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 2.151556e-05
                                                                                    0
                             0
                                                 0
                                                                                    0
##
  CSI044
                   0
                                       0
                                                           0 0.000000e+00
## CSI055
                             0
                   0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI065
                             0
                                       0
                                                           0 0.000000e+00
                                                                                    0
                   0
                                                 0
##
  CSI076
                   0
                             0
                                       0
                                                           0 0.00000e+00
                                                                                    0
##
           Otu12317 Otu12318 Otu12319
                                              Otu12320 Otu12321 Otu12322 Otu12323
## CSI001
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                          0
                                                                                    0
## CSI012
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
                                       0 0.000000e+00
  CSI022
                   0
                             0
                                                               0
                                                                          0
                                                                                    0
##
## CSI044
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI055
                   0
                             0
                                       0 2.151417e-05
                                                               0
                                                                          0
                                                                                    0
## CSI065
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                          0
                                                                                    0
```

```
0 0.000000e+00 0 0
## CSI076
            0
##
             Ot:112324
                          Otu12325 Otu12326
                                              Otu12327 Otu12328 Otu12329
## CSI001 0.000000e+00 0.000000e+00 0 0.00000e+00
                                                              0
## CSI012 1.724971e-05 0.000000e+00
                                        0 0.00000e+00
                                                              Λ
                                                                       0
## CSI022 0.000000e+00 0.000000e+00
                                         0 0.00000e+00
                                                              0
                                                                       0
## CSI044 0.000000e+00 0.000000e+00
                                         0 3.94314e-05
                                                              Λ
                                                                       0
## CSI055 0.000000e+00 0.000000e+00
                                       0 0.00000e+00
                                                              0
## CSI065 0.000000e+00 0.000000e+00
                                                              0
                                        0 0.00000e+00
                                                                       0
                                   0 0.00000e+00
## CSI076 0.000000e+00 0.000000e+00
                                                              Ω
         Otu12330 Otu12331 Otu12332 Otu12333 Otu12334 Otu12335 Otu12336
##
## CSI001
                0
                         0
                                 0
                                          0
                                                   0
                                                            0
## CSI012
                         0
                                  0
                                           0
                                                   0
                                                            0
                                                                     0
                0
## CSI022
                0
                         0
                                  0
                                           0
                                                   0
                                                            0
                                                                     0
## CSI044
                0
                         0
                                  0
                                           0
                                                   0
                                                                     0
## CSI055
                0
                         0
                                 0
                                          0
                                                   0
## CSI065
                0
                         0
                                 0
                                          0
                                                   0
## CSI076
                0
                         0
                                 0
                                          0
                                                   0
                                                            0
                                                                     0
             Otu12337 Otu12338 Otu12339 Otu12340 Otu12341 Otu12342 Otu12343
## CSI001 0.000000e+00
                       0
                                     0
                                              Ο
                                                       0
                                                                0
                                                                         0
## CSI012 0.000000e+00
                             0
                                      0
                                              0
                                                       0
                                                                0
                                                                         0
## CSI022 0.000000e+00
                             0
                                      0
                                              Λ
                                                       0
                                                                0
                                                                         0
## CSI044 0.000000e+00
                             0
                                      0
                                              0
                                                       0
## CSI055 4.302833e-05
                             0
                                     0
                                              0
                                                       0
                                                                Λ
## CSI065 0.000000e+00
                             0
                                      0
                                              0
                                                       0
                                                                0
## CSI076 0.000000e+00
                                     0
                                              0
                                                       Λ
                                                                Ω
         Otu12344 Otu12345
                           Otu12346 Otu12347 Otu12348 Otu12349
## CSI001
                0 0.000000e+00
                                              0
                                                       Ω
                                                                0
## CSI012
                0
                         0 0.000000e+00
                                              0
                                                       0
                                                                0
                0
                                                       0
## CSI022
                         0 0.000000e+00
                                              0
                                                                0
                0
## CSI044
                         0 0.000000e+00
                                              0
                                                       0
## CSI055
                0
                         0 4.302833e-05
                                              0
                                                       0
## CSI065
                0
                         0 0.000000e+00
                                              0
                                                       0
              0
                         0 0.000000e+00
                                              0
                                                       0
           Otu12350 Otu12351 Otu12352 Otu12353 Otu12354 Otu12355 Otu12356
##
## CSI001 2.345326e-05
                             0
                               0
                                        0
                                                       0
                                                                0
                                                                         0
## CSI012 0.000000e+00
                             0
                                     0
                                              0
                                                       0
                                                                0
                                                                         0
## CSI022 0.000000e+00
                             0
                                      0
                                              0
                                                       0
                                                                         0
## CSI044 0.000000e+00
                             0
                                     0
                                              0
                                                       Λ
                                                                0
                                                                         0
## CSI055 0.000000e+00
                             0
                                      0
                                              0
                                                       0
                                                                0
                                     0
## CSI065 0.000000e+00
                             0
                                              Λ
                                                       Λ
                                                                Λ
## CSI076 0.000000e+00
                                      0
                                              0
##
         Otu12357 Otu12358 Otu12359 Otu12360 Otu12361 Otu12362 Otu12363
## CSI001
                0
                   0
                                 0
                                          0
                                                   0
                                                            0
                                                                     0
                0
                         0
                                  0
                                           0
                                                   0
                                                            0
## CSI012
                                                                     0
## CSI022
                         0
                0
                                  0
                                           0
                                                                     0
## CSI044
                0
                         0
                                  0
                                           0
                                                   0
                                                            0
                                                                     0
## CSI055
                0
                         0
                                  0
                                           0
                                                   0
                                                                     0
                0
                         0
                                  0
                                           0
## CSI065
                0
                         0
                                  0
                                          0
                                                   0
                                                            0
                                                                     0
         Otu12364 Otu12365 Otu12366 Otu12367 Otu12368 Otu12369 Otu12370
## CSI001
                0
                         0
                                 0
                                          0
                                                   0
                                                            0
                                                                     0
                0
                         0
                                  0
                                          0
                                                   0
                                                            0
## CSI012
                                                                     0
## CSI022
                0
                         0
                                 0
                                          0
                                                   0
                                                            0
                                                                     0
                        0
## CSI044
                0
                                 0
                                          0
                                                   0
                                                            0
                                                                     0
```

```
## CSI055
                  0
                           0
                                     0
                                                                            0
## CSI065
                           0
                                     0
                                              0
                                                        0
                                                                  0
                  0
                                                                            0
## CSI076
                  0
                           0
                                               0
                                                        0
                                                                  0
                                      Otu12373 Otu12374 Otu12375 Otu12376
##
              Otu12371 Otu12372
## CSI001 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
## CSI012 0.000000e+00
                                0 0.000000e+00
                                                       Λ
                                                                 Ω
                                                                           0
## CSI022 0.000000e+00
                                0 2.151556e-05
                                                       0
                                                                 0
                                                                           0
## CSI044 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI055 0.000000e+00
                                0 0.00000e+00
                                                       Λ
                                                                 Ω
                                                                           0
                                                       Λ
                                                                 Λ
                                                                          Λ
   CSI065 0.000000e+00
                                0 0.00000e+00
   CSI076 0.000000e+00
                                0 0.00000e+00
          Otu12377 Otu12378 Otu12379
##
                                          Otu12380 Otu12381 Otu12382 Otu12383
## CSI001
                  0
                           0
                                     0 2.345326e-05
                                                            0
                                                                      0
## CSI012
                           0
                                                            0
                                                                                0
                  0
                                     0 0.00000e+00
                                                                      0
## CSI022
                           0
                                     0 0.000000e+00
                                                            0
                                                                                0
                  0
                                                                      0
## CSI044
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                                0
                  0
                           0
                                                            0
                                                                      0
## CSI055
                                     0 0.00000e+00
                                                                                0
## CSI065
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                            0
##
   CST076
                  0
                           0
                                     0 0.000000e+00
                                                                                0
          Otu12384 Otu12385 Otu12386 Otu12387 Otu12388 Otu12389
                                                                        0tu12390
## CSI001
                  Λ
                           Λ
                                     Ω
                                               \cap
                                                        Λ
                                                                  0 2.345326e-05
## CSI012
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0.000000e+00
                           0
                                               0
                                                        0
## CSI044
                  0
                                     0
                                                                  0 0.00000e+00
                           0
                                               0
                                                        0
## CST055
                  0
                                     0
                                                                  0 0.00000e+00
  CSI065
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
  CSI076
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
##
          Otu12391 Otu12392 Otu12393 Otu12394 Otu12395 Otu12396
                                                                        0tu12397
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
   CST044
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.000000e+00
                                               0
   CSI055
                  0
                           0
                                     0
                                                        0
                                                                  0 0.00000e+00
                           0
                                               0
                                                        0
##
  CSI065
                  0
                                     0
                                                                  0 0.00000e+00
                  0
                           0
                                     0
                                               0
                                                                  0 0.00000e+00
##
   CSI076
              Otu12398 Otu12399 Otu12400
                                                            Otu12402 Otu12403
##
                                               Otu12401
## CSI001 0.000000e+00
                                0
                                         0 0.000000e+00 0.00000e+00
## CSI012 1.724971e-05
                                0
                                         0 0.000000e+00 0.00000e+00
                                                                              0
## CSI022 0.000000e+00
                                0
                                         0 0.000000e+00 0.00000e+00
                                                                              0
## CSI044 0.000000e+00
                                0
                                         0 0.000000e+00 3.94314e-05
                                                                              0
  CSI055 0.000000e+00
                                         0 0.000000e+00 0.00000e+00
## CSI065 0.000000e+00
                                0
                                         0 0.000000e+00 0.00000e+00
                                                                              0
   CSI076 0.000000e+00
                                0
                                         0 0.000000e+00 0.00000e+00
                                                                              0
              Otu12404 Otu12405 Otu12406 Otu12407 Otu12408 Otu12409 Otu12410
##
                                                                      0
  CSI001 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
## CSI012 1.724971e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                0
   CSI022 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                0
                                         0
                                                   0
                                                            0
                                                                                0
  CSI044 0.000000e+00
  CSI055 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI065 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                0
                                         0
                                                   0
                                                            0
                                                                      0
  CSI076 0.000000e+00
          Otu12411 Otu12412 Otu12413 Otu12414 Otu12415 Otu12416 Otu12417
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI012
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
```

	aa tooo	0		0	^	^		^	^
	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##			Otu12419	Otu12420	0tu12421	Utu12		u12423	
##	CSI001	0	0	0			0	0	0
##	CSI012	0	0	0	0.00000e+00		0	0	0
##	CSI022	0	0	0	0.000000e+00		0	0	0
##	CSI044	0	0	0	0.000000e+00		0	0	0
##	CSI055	0	0	0	0.000000e+00		0	0	0
##	CSI065	0	0	0	0.000000e+00		0	0	0
##	CSI076	0	0	0	0.000000e+00		0	0	0
##		Otu12425	Otu12426	Otu12427	Otu12428 Otu	12429	Otu124	30 Otu	12431
##	CSI001	0	0	0	0	0		0	0
##	CSI012	0	0	0	0	0		0	0
##	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##		Otu12432	Otu12433	Otu12434	Otu12435 Otu	12436	Otu124	37 Otu	12438
##	CSI001	0	0	0	0	0		0	0
##	CSI012	0	0	0	0	0		0	0
##	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##		Otu12439	Otu12440	Otu12441	Otu12442 Otu	12443	Ot	u12444	Otu12445
##	CSI001	0	0	0	0	0	0.0000	00e+00	0
##	CSI012	0	0	0	0	0	3.4499	41e-05	0
##	CSI022	0	0	0	0	0	0.0000	00e+00	0
##	CSI044	0	0	0	0	0	0.0000	00e+00	0
##	CSI055	0	0	0	0	0	0.0000	00e+00	0
##	CSI065	0	0	0	0	0	0.0000	00e+00	0
##	CSI076	0	0	0	0	0	0.0000	00e+00	0
##		Otu12446	Otu12447	Otu12448	Otu12449	Otu12	450 Ot	u12451	Otu12452
##	CSI001	0	0		0.000000e+00		0	0	0
	CSI012	0	0		3.449941e-05		0	0	0
	CSI022	0	0		0.000000e+00		0	0	0
	CSI044	0	0	0	0.000000e+00		0	0	0
	CSI055	0	0		0.000000e+00		0	0	0
	CSI065	0	0		0.000000e+00		0	0	0
	CSI076	0	0		0.000000e+00		0	0	0
##	0.020.0				Otu12456 Otu:	12457	-	-	-
	CSI001	0	0	0	0	0	00422	0	0
	CSI012	0	0	0	0	0		0	0
	CSI022	0	0	0	0	0		0	0
	CSI044	0	0	0	0	0		0	0
	CSI055	0	0	0	0	0		0	0
	CSI065	0	0	0	0	0		0	0
	CS1003	0	0	0	0	0		0	0
##	ODIOLO	Otu12460			2462 Otu12463		2464 D+	-	
##		JUU12400	otula	r-tor ocula	2-102 Utu12403	ocuiz	±U-± UL	u12400	00412400

	GGT 0 0 4	•			•		•	•	•
	CSI001		0.000000e		0		0	0	0
	CSI012		3.449941e		0		0	0	0
	CSI022	_	0.00000e		0		0	0	0
	CSI044		0.000000e		0		0	0	0
##	CSI055		0.000000e		0		0	0	0
##	CSI065	0	0.000000e	+00	0		0	0	0
##	CSI076		0.000000e		0		0	0	0
##		Otu12467	Otu12468	Otu12469	9 Otu12	2470	Otu12471	Otu12472	Otu12473
##	CSI001	0	0	(	)	0	0	0	0
##	CSI012	0	0	(	)	0	0	0	0
##	CSI022	0	0	(	)	0	0	0	0
##	CSI044	0	0	(	)	0	0	0	0
##	CSI055	0	0	(	)	0	0	0	0
##	CSI065	0	0	(	)	0	0	0	0
##	CSI076	0	0	(	)	0	0	0	0
##		Otu12474	Otu12475	Otu1247	0tu12	2477	Otu12478	Otu12479	Otu12480
##	CSI001	0	0	(	)	0	0	0	0
##	CSI012	0	0	(	)	0	0	0	0
##	CSI022	0	0	(	)	0	0	0	0
##	CSI044	0	0	(	)	0	0	0	0
	CSI055	0	0	(	)	0	0	0	0
	CSI065	0	0		)	0	0	0	0
	CSI076	0	0		)	0	0	0	0
##	ODIOTO	Otu12481	·			•	·	·	•
	CSI001	0	0		)	0	0	0	0
	CSI012	0	0		)	0	0	0	0
	CSI012	0	0		)	0	0	0	0
##	CSI044	0	0		)	0	0	0	0
##	CSI055	0	0		)	0	0	0	0
##	CSI055	0	0		)	0	0	0	0
	CS1005	0	0		)	0	0	0	0
##	CSTUTO	_	-			-	-	·	-
##	CCT OO 1					Jtulz		2492 Otu12	
##		0.000000e		0	0		0	0	0
##		0.000000e		0	0		0	0	0
##		2.151556e		0	0		0	0	0
##		0.000000e		0	0		0	0	0
		0.000000e		0	0		0	0	0
		0.000000e		0	0		0	0	0
	CS1076	0.000000e		0	0		0	0	0
##			494 Otu12					Otu12498 (	
		0.000000e			0000e+		0	0	0
		0.000000e			0000e+		0	0	0
		0.000000e			0000e+		0	0	0
		0.000000e			0000e+		0	0	0
##	CSI055	0.000000e	+00	0 0.00	0000e+	-00	0	0	0
##	CSI065	0.000000e	+00	0 0.00	0000e+	-00	0	0	0
##	CSI076	0.000000e	+00	0 0.00	0000e+	-00	0	0	0
##		Otu12500	Otu12501	Otu12502	2 Otu12	2503	Otu12504	Otu12505	Otu12506
##	CSI001	0	0	(	)	0	0	0	0
##	CSI012	0	0	(	)	0	0	0	0
##	CSI022	0	0	(	)	0	0	0	0
##	CSI044	0	0	(	)	0	0	0	0
##	CSI055	0	0	(	)	0	0	0	0
	CSI065	0	0	(	)	0	0	0	0

##	CSI076	0	0	0	0	0	0	0	
##	ODIOTO	-	Otu12508			_	_	-	
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu12514	Otu12515	Otu12516	Otu12517	Otu12518	Otu12519	Otu12520	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##		Otu12521	Otu12522	Otu12523	Otu12524	Otu12525	Otu12526	Otu12527	
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
##	CSI022	0	0	0	0	0	0	0	
##	CSI044	0	0	0	0	0	0	0	
##	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##			2528 Otu12		Otu12530 (			532 Otu12	
##		0.000000			0000e+00		0.000000e-		0
##		0.000000			9941e-05		L.724971e-		0
##		0.000000			0000e+00		0.000000e-		0
##		0.000000			0000e+00		0.000000e-		0
##		0.000000			0000e+00		0.000000e-		0
##		0.000000			0000e+00		0.000000e-		0
##	CS1076	0.000000			0000e+00		0.000000e-		0
##	QQT001		Otu12535						
##	CSI001	0	0	0	0	0	0	0	
##	CSI012	0	0	0	0	0	0	0	
	CSI022 CSI044	0	0	0	0	0	0	0	
	CS1044 CSI055	0	0	0	0	0	0	0	
	CSI065	0	0	0	0	0	0	0	
	CS1003	0	0	0	0	0	0	0	
##	CDIOTO		Otu12542	-		-	-	_	
	CSI001	0	0	0	0	0	0	0	
	CSI012	0	0	0	0	0	0	0	
	CSI022	0	0	0	0	0	0	0	
	CSI044	0	0	0	0	0	0	0	
	CSI055	0	0	0	0	0	0	0	
##	CSI065	0	0	0	0	0	0	0	
##	CSI076	0	0	0	0	0	0	0	
##	- · · <del>-</del>	Otu12548	Otu12	2549 Otu12	2550 Otu12	2551 Otu12	2552 Otu12	2553 Otu1:	2554
##	CSI001		0.0000006		0	0	0	0	0
	CSI012		0.0000006		0	0	0	0	0
	CSI022	0	0.0000006	e+00	0	0	0	0	0
##	CSI044	0	0.0000006	e+00	0	0	0	0	0

```
## CSI055
                 0 0.000000e+00
                                        0
                                                 0
                                                           0
## CST065
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI076
                 0 0.00000e+00
                                        0
                                                  0
                                                           0
##
          Otu12555 Otu12556 Otu12557 Otu12558 Otu12559 Otu12560 Otu12561
## CST001
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
## CSI012
                 Λ
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI022
                 0
                           0
                                    0
                                              0
                                                       0
                                                                          0
## CSI044
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI055
                 0
                           0
                                    0
                                              0
                                                       Λ
                                                                          0
                 0
                           0
                                    0
                                              0
                                                       0
## CSI065
  CSI076
                 0
                           0
                                    0
                                              0
          Otu12562 Otu12563 Otu12564 Otu12565 Otu12566 Otu12567 Otu12568
##
## CSI001
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI012
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI022
                 0
                           0
                                                       0
                                                                 0
                                    0
                                              0
                                                                          0
## CSI044
                 0
                           0
                                    0
                                              0
                                                       0
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
## CSI055
                                                                          0
## CSI065
                           0
                           0
                                    0
                                              0
                                                       0
                                                                 0
##
  CST076
                 0
              Otu12569 Otu12570 Otu12571 Otu12572 Otu12573 Otu12574 Otu12575
## CSI001 0.000000e+00
                               Ω
                                        Ω
                                                  Λ
                                                           Λ
                                                                     Λ
                                                                              0
## CSI012 1.724971e-05
                                        0
                                                  0
                                                           0
## CSI022 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI044 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                               0
                                        0
                                                  0
                                                           Λ
                                                                     0
## CSI055 0.000000e+00
## CSI065 0.000000e+00
                                        0
                                                  0
                                                           0
## CSI076 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                     Λ
                                                                              0
          Otu12576 Otu12577 Otu12578 Otu12579 Otu12580 Otu12581
                                                                     Otu12582
## CSI001
                 0
                    0
                                    0
                                              0
                                                       0
                                                                 0 0.000000e+00
## CSI012
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.00000e+00
## CSI022
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.00000e+00
## CSI044
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.000000e+00
                                    0
                                              0
## CSI055
                 0
                           0
                                                                 0 0.00000e+00
## CSI065
                           0
                                    0
                                              0
                 0
                                                       0
                                                                 0 0.00000e+00
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.00000e+00
##
          Otu12583 Otu12584 Otu12585
                                          Otu12586 Otu12587 Otu12588 Otu12589
## CSI001
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                     0
## CSI012
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                     0
                                                                              0
## CSI022
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                     0
                                                                              0
                           0
                 Λ
                                    0 0.000000e+00
                                                           Λ
                                                                     0
                                                                              Λ
## CSI044
                 0
                           0
                                                           0
## CSI055
                                    0 0.00000e+00
## CSI065
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                     0
                                                                              0
                           0
                 0
                                    0 0.000000e+00
                                                           0
                                                                     Ω
          Otu12590 Otu12591 Otu12592 Otu12593
##
                                                 Otu12594
                                                                  0tu12595
                                             0 0.000000e+00 0.000000e+00
## CSI001
                 0
                           0
                                    0
## CSI012
                 0
                           0
                                    0
                                              0 0.000000e+00 1.724971e-05
## CSI022
                 0
                           0
                                    0
                                              0 0.000000e+00 0.000000e+00
                 0
                           0
                                    0
## CSI044
                                              0 0.000000e+00 0.000000e+00
## CSI055
                 0
                           0
                                    0
                                              0 2.151417e-05 0.000000e+00
## CSI065
                 0
                           0
                                    0
                                              0 0.000000e+00 0.000000e+00
                 0
                           0
                                    0
                                             0 0.000000e+00 0.000000e+00
## CST076
          Otu12596 Otu12597 Otu12598 Otu12599
                                                    Otu12600 Otu12601
## CSI001
                 0
                           0
                                    0
                                             0 2.345326e-05
                                                                     0
## CSI012
                 0
                           0
                                    0
                                             0 0.000000e+00
                                                                     0
```

```
## CSI022
                                                 0 0.00000e+00
                                                                         0
## CSI044
                   0
                             0
                                                 0 0.00000e+00
                                                                         0
                                       0
## CSI055
                   0
                             0
                                                 0 0.00000e+00
                                                                         0
  CSI065
                   0
                             0
                                                 0 0.00000e+00
##
                                                                         0
##
   CSI076
                   0
                                                 0 0.000000e+00
                                                                         0
##
                              Otu12603 Otu12604 Otu12605
                                                                Otu12606 Otu12607
               0tu12602
  CSI001 2.345326e-05 2.345326e-05
                                                          0 0.000000e+00
                                                0
                                                                                  0
## CSI012 0.000000e+00 0.000000e+00
                                               0
                                                          0 0.00000e+00
                                                                                  0
   CSI022 0.000000e+00 0.000000e+00
                                               0
                                                          0 0.00000e+00
                                                                                  0
                                                0
   CSI044 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
                                                                                  0
   CSI055 0.000000e+00 0.000000e+00
                                                0
                                                          0 0.00000e+00
                                                                                  0
   CSI065 0.000000e+00 0.000000e+00
                                                0
                                                          0 3.782005e-05
                                                                                  0
   CSI076 0.000000e+00 0.000000e+00
                                                0
                                                          0 0.000000e+00
##
           Otu12608 Otu12609 Otu12610 Otu12611 Otu12612 Otu12613 Otu12614
## CSI001
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                   0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI022
                   0
                             0
                                                           0
                                                                     0
                                                                               0
                                       0
                                                 0
  CSI044
                   0
                             0
                                                           0
                                                                               0
## CSI055
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu12615
                    Otu12616 Otu12617 Otu12618 Otu12619 Otu12620
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                       0
                                                                               0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI065
                             0
                                                 0
                                                                     0
                                                                               0
                   0
                                       0
                                                           0
                             0
                                                                     0
                                                                               0
   CSI076
                   0
                                       0
                                                 0
                                                           0
##
           Otu12622 Otu12623 Otu12624 Otu12625
##
                                                       Otu12626 Otu12627 Otu12628
## CSI001
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
##
   CSI012
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                         0
                                                                                    0
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
                   0
                             0
                                       0
                                                                                    0
## CSI044
                                                 0 0.00000e+00
                                                                         0
## CSI055
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
  CSI065
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
##
   CSI076
                   0
                             0
                                       0
                                                 0 5.781349e-05
                                                                         0
##
           Otu12629 Otu12630 Otu12631 Otu12632 Otu12633 Otu12634 Otu12635
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI012
                   Λ
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI022
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                                       0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                 0
  CSI055
                   0
                             0
                                       0
                                                           0
                                                                     0
                                                                               0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
  CSI065
                   \cap
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI076
                         Otu12637 Otu12638 Otu12639 Otu12640 Otu12641 Otu12642
           Otu12636
##
## CSI001
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI012
                                                                                    0
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
   CSI022
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI044
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
                   0 0.000000e+00
   CSI055
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
## CSI065
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                                    0
## CSI076
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
           Otu12643 Otu12644 Otu12645 Otu12646 Otu12647 Otu12648 Otu12649
```

##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	ODIOTO	Otu12650	Otu12651	Otu12652	-	-	Otu12655	Otu12656
##	CSI001	0	0	0	0	00012004	0	0
##	CSI001	0	0	0		0		
					0		0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu12657	Otu12658	Otu12659	Otu12660	Otu12661	Otu12662	Otu12663
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	OBIOTO	Otu12664	Otu12665	Otu12666	Otu12667	-	Otu12669	Otu12670
	CCT OO 1							
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu12671	Otu12672	Otu12673	Otu12674	Otu12675	Otu12676	Otu12677
##	CSI001	0	0	0	0	0	0	0.000000e+00
##	CSI012	0	0	0	0	0	0	0.000000e+00
##	CSI022	0	0	0	0	0	0	0.000000e+00
##	CSI044	0	0	0	0	0	0	0.000000e+00
##	CSI055	0	0	0	0	0	0	0.000000e+00
##	CSI065	0	0	0	0	0	0	0.000000e+00
	CSI076	0	0	0	0	0		0.000000e+00
##	0.020.0			-	Otu12681			
	CSI001	0	0	0	0	0	0	0
	CSI012	0	0	0	0	0	0	0
	CS1012	0	0	0	0	0	0	0
		0		0	0		0	
	CSI044	-	0	-	-	0	-	0
	CSI055	0	0	0	0	0	0	0
	CSI065	0	0	0	0	0	0	0
	CSI076	0	0	0	0	0	0	0
##				2686 Otu12		)tu12688 (	)tu12689 (	Otu12690
		0.0000006		0	0 0.000	0000e+00	0	0
##	CSI012	1.7249716	e-05	0	0 3.449	9941e-05	0	0
##	CSI022	0.0000006	e+00	0	0 0.000	0000e+00	0	0
##	CSI044	0.0000006	e+00	0	0 0.000	0000e+00	0	0
##	CSI055	0.0000006	e+00	0	0 0.000	0000e+00	0	0
##	CSI065	0.0000006	e+00	0	0 0.000	0000e+00	0	0

##	CSI076	0.0000006	e+00	0	0 0.000	0000e+00	0		0
##				Otu12693			Otu12696	Otu12	2697
##	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0
##	CSI022	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI055	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0	2700 6	0
##	<b>GGT004</b>		Otu12699	Otu12700	Otu12701		2702 Otu12		
##	CSI001 CSI012	0	0	0		0.0000006		0	0
##	CS1012 CS1022	0	0	0	0	0.000000		0	0
##	CS1022	0	0	0	0	0.0000000		0	0
##	CSI055	0	0	0	0	0.0000000		0	0
##	CSI065	0	0	0	0	0.0000000		0	0
##	CSI076	0	0	0	0	0.0000006		0	0
##		Otu12705	Otu12706	Otu12707	Otu12708	Otu12709	Otu12710	C	tu12711
##	CSI001	0	0	0	0	0	0	0.000	000e+00
##	CSI012	0	0	0	0	0	0	1.724	971e-05
##	CSI022	0	0	0	0	0	0	0.000	000e+00
##	CSI044	0	0	0	0	0	0		000e+00
##	CSI055	0	0	0	0	0	0		0000e+00
##	CSI065	0	0	0	0	0	0		0000e+00
##	CSI076	0	0	0	0	0	0		000e+00
##	CCTOO1			Otu12714	Utu12/15		Otu12717	Otu12	
##	CSI001 CSI012	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI055	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0		0
##		Otu12719	Otu12720	Otu12721	Otu12722	Otu12	2723 Otu12	2724 C	tu12725
##	CSI001	0	0	0	0	0.0000006	e+00	0	0
##	CSI012	0	0	0	0	0.0000006	e+00	0	0
	CSI022	0	0	0	0	0.0000006		0	0
	CSI044	0	0	0		0.0000006		0	0
	CSI055	0	0	0		0.0000006		0	0
	CSI065	0	0	0		0.0000006		0	0
##	CSI076	0+10706	0+10707	0 0tu12728		0.0000006		0	0
	CSI001	0 0 0	0	00012720	0 0 0 0	00012730	0 0 0	Utu12	0
	CSI012	0	0	0	0	0	0		0
	CSI022	0	0	0	0	0	0		0
	CSI044	0	0	0	0	0	0		0
	CSI055	0	0	0	0	0	0		0
	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0		0
##		Otu12733	Otu12734	Otu12735	Otu12736	Otu12737	Otu12738	Otu12	739
	CSI001	0	0	0	0	0	0		0
	CSI012	0	0	0	0	0	0		0
	CSI022	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0

##	CSI055	0	0	0	0	(	)	0		0	
##	CSI065	0	0	0	0	(		0		0	
##	CSI076	0	0	0	0	(	)	0		0	
##		Otu12740	Otu12741	Otu12	2742 Otu1	2743 Otu1	2744	Otu127	45	Otu1274	16
##	CSI001	0	0	0.0000006	e+00	0	0		0		0
##	CSI012	0	0	0.0000006	e+00	0	0		0		0
##	CSI022	0	0	2.1515566	e-05	0	0		0		0
##	CSI044	0	0	0.0000006	e+00	0	0		0		0
##	CSI055	0	0	0.0000006	e+00	0	0		0		0
##	CSI065	0	0	0.0000006	e+00	0	0		0		0
##	CSI076	0	0	0.0000006	e+00	0	0		0		0
##		Otu12747	Otu12748	Otu12749	Otu12750	Otu12751	Otu	12752 0	tu1	.2753	
##	CSI001	0	0	0	0	(	)	0		0	
##	CSI012	0	0	0	0	(	)	0		0	
##	CSI022	0	0	0	0	(	)	0		0	
##	CSI044	0	0	0	0	(	)	0		0	
##	CSI055	0	0	0	0	(	)	0		0	
##	CSI065	0	0	0	0	(	)	0		0	
##	CSI076	0	0	0	0	(	)	0		0	
##		Otu12754	Otu12755	Otu12756	Otu12757	Otu12758	3 Otu	12759 C	tu1	.2760	
##	CSI001	0	0	0	0	(	)	0		0	
	CSI012	0	0	0	0	(	)	0		0	
	CSI022	0	0	0	0	(	)	0		0	
##	CSI044	0	0	0	0	(		0		0	
##	CSI055	0	0	0	0	(		0		0	
##	CSI065	0	0	0	0	(		0		0	
##	CSI076	0	0	0	0	(		0		0	
##	GGT001			Otu12763					ltu]	.2767	
##	CSI001 CSI012	0	0	0	0	(		0		0	
##	CS1012	0	0	0	0	(		0		0	
##	CSI044	0	0	0	0	(		0		0	
##	CSI044	0	0	0	0	(		0		0	
##	CSI065	0	0	0	0	(		0		0	
##	CSI076	0	0	0	0	(		0		0	
##	OBIOTO	Otu12768	Otu12769	Otu12770	•	`	•	•	1+111	.2774	
##	CSI001	0	0	0	0	(		0	, o a .	0	
	CSI012	0	0	0	0	(		0		0	
	CSI022	0	0	0	0	(	)	0		0	
	CSI044	0	0	0	0	(	)	0		0	
##	CSI055	0	0	0	0	(	)	0		0	
##	CSI065	0	0	0	0	(	)	0		0	
##	CSI076	0	0	0	0	(	)	0		0	
##		Otu12775	Otu12776	Otu12777	Otu12778	Otu12779	Otu	12780 C	tu1	.2781	
##	CSI001	0	0	0	0	(	)	0		0	
	CSI012	0	0	0	0	(	)	0		0	
	CSI022	0	0	0	0	(	)	0		0	
	CSI044	0	0	0	0	(	)	0		0	
	CSI055	0	0	0	0	(		0		0	
	CSI065	0	0	0	0	(		0		0	
	CSI076	0	0	0	0	(		0		0	20
##	GGT			Otu12784				Utu127		Otu1278	
	CSI001	0	0	0	_	0.000000			0		0
##	CSI012	0	0	0	0	0.000000	)e+00		0		0

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## CSI022
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                                                 0 0.00000e+00
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## CST044
                   0
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                                                 0 0.00000e+00
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## CSI055
                   0
                             0
                                                 0 0.00000e+00
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## CSI065
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                   Ω
                                       0
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   CSI076
                   0
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                                       0
                                                 0 5.781349e-05
                                                                          0
                                                                                    0
##
           Otu12789 Otu12790 Otu12791 Otu12792 Otu12793 Otu12794 Otu12795
## CSI001
                             0
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                                                                     0
                   0
                                       0
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## CSI012
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## CSI022
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## CSI044
                                       0
  CSI055
                   0
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## CSI065
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   CSI076
                   0
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           Otu12796 Otu12797 Otu12798 Otu12799 Otu12800 Otu12801
##
## CSI001
                   0
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## CSI012
                   0
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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##
   CST076
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           Otu12803 Otu12804 Otu12805 Otu12806 Otu12807 Otu12808 Otu12809
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
                   0
           Otu12810 Otu12811 Otu12812 Otu12813 Otu12814 Otu12815
##
## CSI001
                   0
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
           Otu12817
                          Otu12818 Otu12819 Otu12820 Otu12821 Otu12822 Otu12823
## CSI001
                   0 0.000000e+00
                                           0
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## CSI012
                   0 0.000000e+00
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## CSI022
                   0 0.000000e+00
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## CSI044
                   0 0.00000e+00
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  CSI055
                   0 0.000000e+00
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                   0 0.000000e+00
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## CSI065
                   0 0.000000e+00
                                                                0
## CSI076
##
           Otu12824
                         Otu12825 Otu12826
                                                  Otu12827 Otu12828 Otu12829
## CSI001
                   0 0.00000e+00
                                           0 4.690652e-05
                                                                    0
                                                                               0
## CSI012
                   0 0.00000e+00
                                                                    0
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                                           0 0.00000e+00
  CSI022
                   0 4.303111e-05
                                           0 0.000000e+00
                                                                    0
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## CSI044
                   0 0.00000e+00
                                           0 0.00000e+00
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##
   CSI055
                   0 0.000000e+00
                                           0 0.000000e+00
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## CSI065
                   0 0.00000e+00
                                           0 0.00000e+00
## CSI076
                   0 0.000000e+00
                                           0 0.000000e+00
                                                                    0
##
           Otu12830
                         Otu12831 Otu12832 Otu12833 Otu12834 Otu12835 Otu12836
```

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	CSI001		0.0000006		0	0	0	0	0
##	CSI012	0	3.4499416		0	0	0	0	0
##	CSI022		0.0000006		0	0	0	0	0
##	CSI044	0	0.0000006		0	0	0	0	0
##	CSI055	0	0.0000006		0	0	0	0	0
##	CSI065	0	0.0000006	e+00	0	0	0	0	0
##	CSI076	0	0.0000006		0	0	0	0	0
##		Otu12837	Otu12838	Otu12839	Otu12840	Otu12841	Otu1284	2 Otu:	12843
##	CSI001	0	0	0	0	0		0	0
##	CSI012	0	0	0	0	0		0	0
##	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##		Otu12844	Otu12845	Otu12846	Otu12847	Otu12848	Otu	12849	Otu12850
##	CSI001	0	0	0	0	0	0.00000	0e+00	0
##	CSI012	0	0	0	0	0	0.00000	0e+00	0
##	CSI022	0	0	0	0	0	0.00000	0e+00	0
##	CSI044	0	0	0	0	0	0.00000	0e+00	0
##	CSI055	0	0	0	0	0	0.00000	0e+00	0
##	CSI065	0	0	0	0	0	0.00000	0e+00	0
##	CSI076	0	0	0	0		0.00000		0
##	001010	Otu12851	_	-	-	2854 Otu13			Otu12857
##	CSI001		4.6906526		0	0	0	0	0
##	CSI012		0.0000000		0	0	0	0	0
##	CSI022	0	0.0000000		0	0	0	0	0
##	CSI044	0	0.0000006		0	0	0	0	0
##	CSI055	0	0.0000000		0	0	0	0	0
##	CSI065	0	0.0000000		0	0	0	0	0
##	CSI076	0	0.0000000		0	0	0	0	0
##	ODIOTO	·	Otu12859		•	•	•	-	Otu12864
##	CSI001	0	0	0	0		0.00000		0
##	CSI012	0	0	0	0	0	0.00000		0
##	CSI012	0	0	0	0	0	0.00000		0
##	CSI044	0	0	0	0	0	0.00000		0
	CSI055	0	0	0	0	-	4.30283		0
	CSI055								0
	CS1005	0	0	0	0		0.00000		0
##	CSIUIO		Otu12866						-
	CSI001	0 0 0	0	0	0	0	Utu1201	0 Utu.	0
		0	0	0	0	0		0	0
	CSI012								
	CSI022	0	0	0	0	0		0 0	0
	CSI044	-		-	0			-	0
	CSI055	0	0	0		0		0	0
	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0	2076 0:	0	0
##	GGT 004		Otu12873						Otu12878
##	CSI001	0	0	0		0.000000		0	0
	CSI012	0	0	0		0.000000		0	0
	CSI022	0	0	0		0.000000		0	0
	CSI044	0	0	0		0.000000		0	0
	CSI055	0	0	0		0.0000006		0	0
##	CSI065	0	0	0	0	0.000000	e+00	0	0

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0 0
                                        0 0.000000e+00
## CSI076
            0
                                                                   0
                                       Otu12882 Otu12883 Otu12884 Otu12885
##
         Otu12879 Otu12880 Otu12881
## CSI001
                0 0
                                   0 0.000000e+00
                                                         0
                                                                   0
## CSI012
                                   0 0.000000e+00
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## CSI022
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## CSI044
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                                   0 0.000000e+00
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## CSI055
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                                   0 0.000000e+00
## CSI065
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                                   0 0.000000e+00
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## CSI076
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          Otu12886 Otu12887 Otu12888 Otu12889 Otu12890 Otu12891 Otu12892
##
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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                                            0 0.000000e+00
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##
              Otu12893 Otu12894 Otu12895 Otu12896 Otu12897 Otu12898 Otu12899
## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 2.151556e-05
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## CSI044 0.000000e+00
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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                                                Λ
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                                                                   Λ
              Otu12900
                           Otu12901 Otu12902 Otu12903 Otu12904 Otu12905
## CSI001 0.000000e+00 0.000000e+00
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                                                                       0
## CSI012 0.000000e+00 1.724971e-05
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## CSI022 0.000000e+00 0.000000e+00
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## CSI044 0.000000e+00 0.000000e+00
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## CSI055 0.000000e+00 0.000000e+00
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## CSI065 0.000000e+00 0.000000e+00
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## CSI076 0.000000e+00 0.000000e+00
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##
         Otu12906 Otu12907 Otu12908 Otu12909 Otu12910 Otu12911 Otu12912
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
                 Λ
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## CST076
##
          Otu12913 Otu12914 Otu12915 Otu12916 Otu12917 Otu12918 Otu12919
                                   0
## CSI001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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          Otu12920 Otu12921 Otu12922 Otu12923 Otu12924 Otu12925
                                                                    Otu12926
## CSI001
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                                                              0 2.345326e-05
## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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##
          Otu12927 Otu12928 Otu12929 Otu12930
                                                     Otu12931 Otu12932 Otu12933
## CST001
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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                                               0 0.00000e+00
                        Otu12935 Otu12936 Otu12937 Otu12938 Otu12939 Otu12940
##
          Otu12934
## CSI001
                  0 0.000000e+00
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## CSI012
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## CSI022
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## CSI044
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                  0 0.000000e+00
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## CSI055
## CSI065
                  0 0.000000e+00
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##
  CST076
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          Otu12941 Otu12942 Otu12943 Otu12944 Otu12945 Otu12946 Otu12947
## CSI001
                  Λ
                           Λ
                                     0
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                                                                  Ω
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## CSI012
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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## CSI076
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          Otu12948 Otu12949
                                 Otu12950 Otu12951 Otu12952 Otu12953 Otu12954
## CSI001
                  0
                           0 0.000000e+00
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## CSI012
                  0
                           0 3.449941e-05
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## CSI022
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## CSI044
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## CSI055
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## CSI065
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##
  CSI076
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                           0 0.00000e+00
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                                                         Otu12959 Otu12960
##
              Otu12955 Otu12956 Otu12957 Otu12958
## CSI001 0.000000e+00
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## CSI012 0.000000e+00
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## CSI022 0.000000e+00
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## CSI044 0.00000e+00
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## CSI055 0.000000e+00
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## CSI065 0.000000e+00
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## CSI076 0.000000e+00
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          Otu12961 Otu12962 Otu12963 Otu12964 Otu12965 Otu12966 Otu12967
##
                           0
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## CSI001
                  0
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## CSI012
                  0
                           0
                                     0
                                                        0
                                                                  0
                                                                            0
                                               0
## CSI022
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                  0
                           0
                                               0
## CSI044
                                     0
                                                                            0
## CSI055
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI065
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CST076
          Otu12968 Otu12969 Otu12970 Otu12971 Otu12972 Otu12973 Otu12974
## CSI001
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                                                        0
## CSI012
                  0
                           0
                                     0
                                               0
                                                                  0
                                                                            0
```

##	CSI022	0	0	0		0		0		0		0
##	CSI044	0	0	0		0		0		0		0
##	CSI055	0	0	0		0		0		0		0
##	CSI065	0	0	0		0		0		0		0
##	CSI076	0	0	0		0		0		0		0
##	CDIOTO	Otu12975	Otu12976	Otu12977	Ω±111	2978	Ω±111	-	Ω±11.	12980	Ω±111	L2981
	CSI001	0	0	0	ocui	0	ocu.	0	ocu.	0	o cu.	0
##	CSI001	0	0	0		0		0		0		0
##	CSI012	0	0	0		0		0		0		0
##	CSI044	0	0	0		0		0		0		0
##	CSI044	0	0	0		0		0		0		0
##	CSI065	0	0	0		0		0		0		0
##	CSI076	0	0	0		0		0		0		0
##	CSIUIO	·	Otu12983	Otu12984	O+111	•	0+111	•	Ω±11.7	0 12987	O+111	L2988
##	CSI001	00012902	00012903	00012904	Utui	2900	Utu.	0	ocu.	0	Utu.	0
##	CSI001	0	0	0		0		0		0		0
##	CS1012	0	0	0		0		0		0		0
##	CSI044	0	0	0				0		0		
	CS1044 CSI055	0	0	0		0		0		0		0
	CSI065	0	0	0		0		0		0		0
##	CS1005	0	0	0		0		0		0		0
##	CSIUIO	Otu12989	·	Otu12991	O+111	•	0+111	•	Ω±11.7	12994	O+111	L2995
	CSI001	00012909	00012990	00012991	Utui	2992	Utu.	0	ocu.	0	Utu.	0
	CSI001	0	0	0		0		0		0		0
	CS1012	0	0	0		0		0		0		0
	CSI044	0	0	0		0		0		0		0
	CS1044 CSI055	0	0	0		0		0		0		0
##	CSI065	0	0	0		0		0		0		0
##	CSI076	0	0	0		0		0		0		0
##	CDIOTO	·	Otu12997	·	Otu1	-		Otu13	2000	_	3001	Otu13002
##	CSI001	00012990	00012991	00012990	otui	2333	0 00	00000		ocui	0	0
##	CSI012	0	0	0		0		00000			0	0
##	CSI012	0	0	0		0		51556e			0	0
##	CSI044	0	0	0		0		00000			0	0
##	CSI055	0	0	0		0		00000			0	0
##	CSI065	0	0	0		0		00000			0	0
	CSI076	0	0	0		0		00000			0	0
##	001010	-	Otu13004		3005					0±.111	-	Otu13009
	CSI001	0		0.0000006		oour	0	our	0	oour	0	0
	CSI012	0		1.724971			0		0		0	0
	CSI022	0		0.0000000			0		0		0	0
	CSI044	0		0.0000000			0		0		0	0
	CSI055	0		0.0000000			0		0		0	0
	CSI065	0		0.0000000			0		0		0	0
##	CSI076	0		0.0000000			0		0		0	0
##	001010			3011 Otu13		Ot.1113		0t.n13		0±.111	-	
	CST001	0.0000006		0	0	00420	0	0041	0	0042	0	0
		0.0000000		0	0		0		0		0	0
		0.0000006		0	0		0		0		0	0
		0.0000000		0	0		0		0		0	0
		0.0000000		0	0		0		0		0	0
		0.0000000		0	0		0		0		0	0
		0.0000006		0	0		0		0		0	0
##				Otu13019	Otu1	3020	0tu1	3021		Otu13	3022	
		•	_									

```
## CSI001
                   0
                             0
                                                           0 0.00000e+00
## CSI012
                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                       0
                                                           0 0.000000e+00
## CSI022
                   0
                             0
                                                 0
                             0
                                                 0
  CSI044
                   0
                                       0
                                                           0 0.000000e+00
##
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
  CSI065
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
##
                   0
                             0
##
   CSI076
                                                           0 0.00000e+00
               Otu13023 Otu13024
##
                                        Otu13025 Otu13026 Otu13027 Otu13028
   CSI001 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                         0
                                                                    0
                                                                              0
   CSI012 1.724971e-05
                                 0 0.000000e+00
   CSI022 0.000000e+00
                                 0 0.00000e+00
                                                          0
                                                                    0
                                                                              0
                                                                    0
   CSI044 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                              0
   CSI055 0.000000e+00
                                 0 0.000000e+00
                                                         0
                                                                    0
                                                                              0
   CSI065 0.000000e+00
                                                                    0
                                 0 0.00000e+00
                                                          0
                                                                              0
   CSI076 0.000000e+00
                                 0 0.000000e+00
                                                         0
                                                                    0
                                                                              0
##
               Otu13029 Otu13030 Otu13031 Otu13032 Otu13033 Otu13034 Otu13035
   CSI001 0.000000e+00
                                                     0
                                                               0
                                                                         0
##
                                 0
                                           0
                                                                                   0
   CSI012 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI022 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
                                                                         0
## CSI044 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI065 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
## CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                                                   O
                                                                         0
           Otu13036 Otu13037 Otu13038 Otu13039 Otu13040
                                                                 Otu13041 Otu13042
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 3.449941e-05
                                                                                   0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
## CSI044
                   0
                                       0
                                                                                   0
## CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
##
           Otu13043 Otu13044 Otu13045 Otu13046
                                                       Otu13047 Otu13048 Otu13049
## CSI001
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
## CSI012
                             0
                                                 0 0.000000e+00
                                                                                   0
                   0
                                       0
                                                                         0
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
## CSI044
                   0
                             0
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
                                       0
## CSI055
                   0
                             0
                                                 0 4.302833e-05
                                                                                   0
## CSI065
                   0
                             0
                                       Λ
                                                 0 0.00000e+00
                                                                         0
                                                                                   0
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                         0
                                                                                   0
##
   CSI076
##
           Otu13050 Otu13051 Otu13052 Otu13053 Otu13054 Otu13055 Otu13056
                             0
                                                                     0
## CSI001
                   0
                                       0
                                                 0
                                                           0
                                                                               0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                                     0
## CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI044
                                       0
## CSI055
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                                       0
## CSI065
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
##
  CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu13057 Otu13058
                                   Otu13059 Otu13060 Otu13061 Otu13062 Otu13063
##
                             0 0.000000e+00
## CSI001
                   0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI012
                   0
                             0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI022
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI044
                   0
                             0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI055
                   0
                             0 4.302833e-05
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI065
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
```

##	CSI076	0	0	0.000000	e+00	0		0		0		0
##		Otu13064	Otu13065			Otu13	3068	Otu1	3069	Otu1	3070	
##	CSI001	0	0	0	0		0		0		0	
##	CSI012	0	0	0	0		0		0		0	
##	CSI022	0	0	0	0		0		0		0	
##	CSI044	0	0	0	0		0		0		0	
##	CSI055	0	0	0	0		0		0		0	
##	CSI065	0	0	0	0		0		0		0	
##	CSI076	0	0	0	0		0		0		0	
##			Otu13072			Otu13		Otu1		Otu1		
##	CSI001	0	0	0	0		0		0		0	
##	CSI012	0	0	0	0		0		0		0	
##	CSI022	0	0	0	0		0		0		0	
##	CSI044	0	0	0	0		0		0		0	
##	CSI055 CSI065	0	0	0	0		0		0		0	
##	CS1005	0	0	0	0		0		0		0	
##	CDIOTO	Otu13078	•	•	3080 Otu1	3081 (	•	2082	•	รกลร	•	084
	CSI001		0.0000006		0	0	Juli	0	ocuic	0	ocuio	0
##	CSI012		0.0000000		0	0		0		0		0
##	CSI022		0.0000006		0	0		0		0		0
##	CSI044		0.0000006		0	0		0		0		0
##	CSI055	0	0.0000006	e+00	0	0		0		0		0
##	CSI065	0	0.0000006	e+00	0	0		0		0		0
##	CSI076	0	0.0000006	e+00	0	0		0		0		0
##		Otu13085	Otu13086	Otu13087	Otu13088	Otu13	3089	Otu1	3090	Otu1	3091	
##	CSI001	0	0	0	0		0		0		0	
##	CSI012	0	0	0	0		0		0		0	
##	CSI022	0	0	0	0		0		0		0	
##	CSI044	0	0	0	0		0		0		0	
##	CSI055	0	0	0	0		0		0		0	
##	CSI065	0	0	0	0		0		0		0	
##	CSI076	0	0	0	0	0005 /	0		0		0	
##	QQT001		Otu13093			3095 (	Jtuli			)tu13		
##	CSI001 CSI012	0	0	0	0.000000			0	0.000			
	CS1012	0	0	0	0.000000			0	0.000			
	CSI022	0	0		0.000000			_	0.000			
	CSI055	0	0		0.000000				4.302			
	CSI065	0	0	0					0.000			
	CSI076	0	0	0	0.000000			0	0.000	0000e	+00	
##		Otu13098	Otu13099				3102	Otu1	3103	Otu1	3104	
##	CSI001	0	0	0	0		0		0		0	
##	CSI012	0	0	0	0		0		0		0	
##	CSI022	0	0	0	0		0		0		0	
##	CSI044	0	0	0	0		0		0		0	
	CSI055	0	0	0	0		0		0		0	
	CSI065	0	0	0	0		0		0		0	
	CSI076	0	0	0	0		0		0		0	
##			Otu13106			Otu13		Otu1		Otu1		
##	CSI001	0	0	0	0		0		0		0	
##	CSI012	0	0	0	0		0		0		0	
##	CSI022	0	0	0	0		0		0		0	
##	CSI044	0	0	0	0		0		0		0	

	GGTAFF	^	^	^	_	^		^	•
	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##			Otu13113				Otu1	L3117	
##	CSI001	0	0	0	0	0		0	0
##	CSI012	0	0	0	0	0		0	0
##	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##	~~~·	Otu13119		Otu13121			Utu1	L3124	
##	CSI001	0	0	0	0	0		0	0
##	CSI012	0	0	0	0	0		0	0
##	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##			Otu13127				Otu1		Otu13132
##	CSI001	0	0	0	0	0		0	0
##	CSI012	0	0	0	0	0		0	0
##	CSI022	0	0	0	0	0		0	0
##	CSI044	0	0	0	0	0		0	0
##	CSI055	0	0	0	0	0		0	0
##	CSI065	0	0	0	0	0		0	0
##	CSI076	0	0	0	0	0		0	0
##	aa too a	Otu13133		134 Otu13		Otu13136	Otu13		
##	CSI001	0	0.000000e	+00	0 0.00	0000e+00	Otu13	0	0
## ##	CSI012	0	0.000000e 0.000000e	+00	0 0.00	0000e+00 0000e+00	Otu13	0 0	0
## ## ##	CSI012 CSI022	0 0	0.000000e 0.000000e 2.151556e	+00 +00 -05	0 0.00 0 0.00 0 0.00	0000e+00 0000e+00 0000e+00	Otu13	0 0 0	0 0 0
## ## ## ##	CSI012 CSI022 CSI044	0 0 0	0.000000e 0.000000e 2.151556e 0.000000e	+00 +00 -05 +00	0 0.00 0 0.00 0 0.00 0 0.00	0000e+00 0000e+00 0000e+00 0000e+00	Otu13	0 0 0	0 0 0
## ## ## ##	CSI012 CSI022 CSI044 CSI055	0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e	+00 +00 -05 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00	0000e+00 0000e+00 0000e+00 0000e+00	Otu13	0 0 0 0	0 0 0 0
## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e	+00 +00 -05 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00	Otu13	0 0 0 0 0	0 0 0 0
## ## ## ## ##	CSI012 CSI022 CSI044 CSI055	0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e	+00 +00 -05 +00 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00		0 0 0 0 0	0 0 0 0 0
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e	+00 +00 -05 +00 +00 +00 0tu13141	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 0tu13142	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143		0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e Otu13140 0	+00 +00 -05 +00 +00 +00 +00 0tu13141	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143	Otu1	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0tu13145
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0 0 0 0 0tu13139 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0	+00 +00 -05 +00 +00 +00 0tu13141 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143	Otu1	0 0 0 0 0 0 0 0 13144 0	0 0 0 0 0 0 0 0 0tu13145 0
## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012	0 0 0 0 0 0 0 0 0 0tu13139 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0 0	+00 +00 -05 +00 +00 +00 0tu13141 0 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143	Otu1	0 0 0 0 0 0 0 0 13144 0	0 0 0 0 0 0 0 0 0tu13145 0 0
## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI0012 CSI022 CSI044	0 0 0 0 0 0 0 0tu13139 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0 0 0	+00 +00 -05 +00 +00 +00 0tu13141 0 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0	Otu1	0 0 0 0 0 0 0 0 13144 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0tu13139 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e Otu13140  0 0 0 0	+00 +00 -05 +00 +00 +00 0 0 0 0 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0	Otu1	0 0 0 0 0 0 0 0 13144 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0tu13139 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0 0 0 0 0	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0	Otu1	0 0 0 0 0 0 0 13144 0 0 0	0 0 0 0 0 0 0 0 0tu13145 0 0 0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0tul3139 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.0000000 0 0 0	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0	Otu1	0 0 0 0 0 0 0 0 13144 0 0 0	0 0 0 0 0 0 0 0 0tu13145 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0tul3139 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.0000000	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0	Otu1 3150	0 0 0 0 0 0 0 13144 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076	0 0 0 0 0 0 0 0tul3139 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0 0 0 0 0 0tu13	+00 +00 -05 +00 +00 +00 0 tu13141 0 0 0 0 0 0 0 147 Otu13 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0 0 0 0 3148 Otu1	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0	Otu1 3150 0	0 0 0 0 0 0 0 13144 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ## ## ## ## ##	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001	0 0 0 0 0 0 0 0tu13139 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0 0 0 0 0 0tu13 0.000000e 3.449941e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 0 147 Otu13 +00 -05	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 0tu13142 0 0 0 0 0 0 3148 0tu1	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0	0tu1 3150 0	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 4.690	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.0000000e 0.0000000e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 147 Otu13 +00 -05 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 0tu13142 0 0 0 0 3148 0tu1	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tul3143 0 0 0 0 0	0tu1 3150 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 147 Otu13 +00 -05 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 0tu13142 0 0 0 0 0 3148 0tu1 0 0 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0 0 0 3149 Otu1 0 0	0tu1 3150 0 0 0	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.0000000e 0.0000000e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 147 Otu13 +00 -05 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0 0 0 0 3148 Otu1 0 0 0 0 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0 0 0 0 0 0 0 0	0tu1 3150 0 0 0	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
###########################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 3.449941e 0.000000e 0.000000e 0.000000e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 0 147 Otu13 +00 -05 +00 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0 0 0 3148 Otu1	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3150 0 0 0 0	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
############################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 3.449941e 0.000000e 0.000000e 0.000000e 0.000000e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 147 Otul: +00 -05 +00 +00 +00 +00 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0 0 0 3148 Otu1	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3150 0 0 0 0 0	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
##############################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076  CSI001 CSI012 CSI022 CSI044 CSI055 CSI076  CSI001 CSI012 CSI022 CSI044 CSI055 CSI076  CSI076	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 3.449941e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.0000000e	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 0 147 Otu13 +00 -05 +00 +00 +00 +00 Otu13141	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 Otu13142 0 0 0 0 0 3148 Otu1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3150 0 0 0 0 0 0 3156	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
##############################	CSI012 CSI022 CSI044 CSI055 CSI065 CSI076 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065 CSI001 CSI012 CSI022 CSI044 CSI055 CSI065	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.000000e 0.000000e 2.151556e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13140 0 0 0 0 0 0tu13 0.000000e 3.449941e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0.000000e 0tu13153 0	+00 +00 -05 +00 +00 +00 0 0 0 0 0 0 0 147 Otul: +00 -05 +00 +00 +00 +00 +00 +00	0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 5.78 0tu13142 0 0 0 0 0 0 3148 0tu1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 0000e+00 1349e-05 0tu13143 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3150 0 0 0 0 0	0 0 0 0 0 0 0 13144 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```
## CSI022
                             0 0.00000e+00
                                                     0
                                                               0
                                                                          0
  CSI044
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                          0
  CSI055
                   0
                               0.000000e+00
                                                     0
                                                                0
                                                                          0
  CSI065
                                                                0
                   0
                               0.000000e+00
                                                     0
                                                                          0
##
##
   CSI076
                               0.000000e+00
                                                     0
                                                                0
                                                                          0
##
               Otu13158 Otu13159 Otu13160 Otu13161 Otu13162 Otu13163 Otu13164
   CSI001 0.000000e+00
                                           0
                                 0
                                                     0
                                                               0
                                                                          0
                                                                                    0
                                                                                    0
## CSI012 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0
                                                                          0
   CSI022 4.303111e-05
                                 0
                                           0
                                                     0
                                                                0
                                                                          0
                                                                                    0
                                 0
                                           0
                                                     0
                                                                0
                                                                                    0
   CSI044 0.000000e+00
                                                                          Λ
   CSI055 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0
                                                                                    0
                                           0
                                                                                    0
   CSI065 0.000000e+00
                                 0
                                                     0
                                                                0
                                                                          0
   CSI076 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0
                                                                          0
                                                                                    0
           Otu13165 Otu13166 Otu13167 Otu13168 Otu13169
##
                                                                  Otu13170 Otu13171
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
  CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
   CSI022
                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
                                       0
   CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
  CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
##
  CSI065
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
   CST076
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
##
           Otu13172 Otu13173
                               Otu13174 Otu13175
                                                        Otu13176 Otu13177 Otu13178
## CSI001
                                                 0 0.000000e+00
                                                                          0
                   0
                             0
                                       0
                                                                                    0
   CSI012
                   0
                             0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
                                       0
                                                                                    0
## CSI022
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
   CSI044
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                                    0
##
  CSI055
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          Λ
                                                                                    0
   CSI065
                   0
                             0
                                                 0 0.000000e+00
                                                                          0
                                                                                    0
                                       0
                             0
   CSI076
                   0
                                       0
                                                 0 0.000000e+00
                                                                                    0
##
##
           0tu13179
                     Otu13180
                               Otu13181 Otu13182 Otu13183 Otu13184
                                                                            0tu13185
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
   CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 3.449941e-05
   CSI022
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
                   0
                             0
                                                 0
                                                           0
                                                                     0 0.000000e+00
##
   CSI044
                                       0
##
   CSI055
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
   CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
##
##
   CSI076
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
           Otu13186
                    Otu13187
                               Otu13188 Otu13189 Otu13190 Otu13191 Otu13192
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI012
                   Λ
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
  CSI022
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                                       0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
                                                 0
                                                                     0
   CSI055
                   0
                                       0
                                                           0
                                                                               0
                   Λ
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI065
                             0
                                       0
                                                           0
                                                                     0
##
   CSI076
##
           Otu13193
                         Otu13194 Otu13195
                                                 Otu13196 Otu13197
                                                                     Otu13198
##
  CSI001
                   0 0.00000e+00
                                           0 0.00000e+00
                                                                   0
                                                                             0
   CSI012
                                                                             0
                   0 3.449941e-05
                                           0 0.00000e+00
                                                                   0
   CSI022
                   0 0.000000e+00
                                           0 0.00000e+00
                                                                   0
                                                                             0
##
   CSI044
                     0.000000e+00
                                             3.94314e-05
                                                                   0
                                                                             0
   CSI055
                    0.000000e+00
                                                                   0
                                                                             0
##
                                           0 0.00000e+00
##
  CSI065
                   0 0.000000e+00
                                           0 0.00000e+00
                                                                   0
                                                                             0
## CSI076
                   0 0.000000e+00
                                           0 0.00000e+00
                                                                   0
                                                                             0
##
           Otu13199
                         Otu13200 Otu13201 Otu13202 Otu13203 Otu13204 Otu13205
```

	GGT 004	0	0 000000		^		^		^	•	^
	CSI001		0.0000006		0		0		0	0	0
	CSI012		0.0000006		0		0		0	0	0
	CSI022		0.0000006		0		0		0	0	0
##	CSI044		0.0000006		0		0		0	0	0
##	CSI055	0	0.0000006		0		0		0	0	0
##	CSI065	0	0.0000006		0		0		0	0	0
##	CSI076	0	5.781349	e-05	0		0		0	0	0
##		Otu13206	Otu13207	Otu1	3208	Otu13	3209	C	)tu13210	0tu132	11
##	CSI001	0	0	0.000000	e+00		0	0.000	000e+00		0
##	CSI012	0	0	0.000000	e+00		0	0.000	000e+00		0
##	CSI022	0	0	0.000000	e+00		0	2.151	L556e-05		0
##	CSI044	0	0	0.000000	e+00		0	0.000	0000e+00		0
##	CSI055	0	0	0.000000	e+00		0	0.000	000e+00		0
##	CSI065	0	0	0.000000	e+00		0	0.000	000e+00		0
##	CSI076	0	0	0.000000	e+00		0	0.000	000e+00		0
##		Otu13212	Otu13213	Otu13214	Otu1	3215	Otu1	13216	Otu13217	Otu13	218
##	CSI001	0	0	0		0		0	0		0
	CSI012	0	0	0		0		0	0		0
	CSI022	0	0	0		0		0	0		0
	CSI044	0	0	0		0		0	0		0
	CSI055	0	0	0		0		0	0		0
	CSI065	0	0	0		0		0	0		0
	CSI076	0	0	0		0		0	0		0
##	CDIOIO	·	Otu13220	-	O+111	-	0+111	•	•	0+112	·
	CSI001	00013219	00013220	00013221	otui	0	U C u .	0	00013224	otuio	0
	CSI001	0	0	0		0		0	0		0
	CSI012	0	0	0		0		0	0		0
	CSI044	0	0	0		0		0	0		0
	CSI055	0	0	0		0		0	0		0
		-		0					0		
##	CSI065	0	0	0		0		0	0		0
##	CSI076	-	•	-	01	-	0+1	•	•	0+12	-
##	GGT 004		Otu13227		Utui		Utu.				
	CSI001	0	0	0		0		0	0		0
##	CSI012	0	0	0		0		0	0		0
	CSI022	0	0	0		0		0	0		0
##	CSI044	0	0	0		0		0	0		0
	CSI055	0	0	0		0		0	0		0
	CSI065	0	0	0		0		0	0		0
	CSI076	0	0	0		0		0	0		0
##	~~~·		Otu13234		Utu1		Utu1				
	CSI001	0	0	0		0		0	0		0
	CSI012	0	0	0		0		0	0		0
	CSI022	0	0	0		0		0	0		0
	CSI044	0	0	0		0		0	0		0
	CSI055	0	0	0		0		0	0		0
	CSI065	0	0	0		0		0	0		0
##	CSI076	0	0	0		0		0	0		0
##		Otu13240	Otu13241	Otu13242	Otu1	3243	Otu1	L3244	Otu13245	0	tu13246
##	CSI001	0	0	0		0		0	0	4.690	652e-05
##	CSI012	0	0	0		0		0	0		000e+00
##	CSI022	0	0	0		0		0	0	0.000	000e+00
##	CSI044	0	0	0		0		0	0	0.000	000e+00
##	CSI055	0	0	0		0		0	0	0.000	000e+00
##	CSI065	0	0	0		0		0	0	0.000	000e+00

##	CSI076	0	0	0	0	0	0 0	0.000000e+00
##		Otu13247	Otu13248	Otu13249	Otu13250	Otu13251	Otu13252 C	tu13253
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0 40055	0 40056	0	0 40050	0	0
##	CCT 001					Otu13258		tu13260
##	CSI001	0	0	0	0	0	0	0
##	CSI012 CSI022	0	0	0	0	0	0	0
##	CS1022	0	0	0	0	0	0	0
##	CS1044 CS1055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	001010	Otu13261	_	Otu13263	-	Otu13265	·	tu13267
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu13268	Otu13269	Otu13270	Otu13271	Otu13272	Otu13273 C	tu13274
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##	GGT 004	Otu13275		Otu13277		Otu13279		280 Otu13281
##	CSI001	0	0	0	0	_	0.000000e+	
##	CSI012 CSI022	0	0	0	0	0	0.000000e+ 0.000000e+	
	CSI044	0	0	0	0		0.000000e+	
	CSI055	0	0	0	0		4.302833e-	
	CSI065	0	0	0	0		0.000000e+	
	CSI076	0	0	0	0		0.000000e+	
##	0.020.0						Otu13287 C	
##	CSI001	0	0	0	0	0	0	0
##	CSI012	0	0	0	0	0	0	0
##	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0
##	CSI055	0	0	0	0	0	0	0
##	CSI065	0	0	0	0	0	0	0
##	CSI076	0	0	0	0	0	0	0
##		Otu13289	Otu13290	Otu13291	Otu13292	Otu13293	Otu13294 C	tu13295
	CSI001	0	0	0	0	0	0	0
	CSI012	0	0	0	0	0	0	0
	CSI022	0	0	0	0	0	0	0
##	CSI044	0	0	0	0	0	0	0

	CSI055	0	0	0	0	0	0		0
##	CSI065 CSI076	0	0	0	0	0	0		0
##	CSIUIO	Otu13296	•	-	-	_	3300 Otu13	3301 D+	-
##	CSI001	0 0 0		0.000000		0	0	0	0
##	CSI012	0		0.0000000		0	0	0	0
##	CSI022	0	0			0	0	0	0
##	CSI044	0	0			0	0	0	0
##	CSI055	0	0			0	0	0	0
##	CSI065	0	0			0	0	0	0
##	CSI076	0	0	0.000000	e+00	0	0	0	0
##		Otu13303	Otu13304	Otu13305	Otu13306	Otu13307	Otu13308	Otu133	09
##	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0
##	CSI022	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI055	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0	0. 400	0
##	<b>GGT004</b>	Otu13310	Otu13311			Otu13314		0tu133	
##	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0
##	CSI022 CSI044	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0		0
##	001010	Otu13317	Otu13318	Otu13319	-	ū	Otu13322	Otu133	•
##	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0
##	CSI022	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI055	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0		0
##			Otu13325			Otu13328		0tu133	
##	CSI001	0	0	0	0	0	0		0
	CSI012	0	0	0	0	0	0		0
	CSI022 CSI044	0	0	0	0	0	0		0
	CS1044 CS1055	0	0	0	0	0	0		0
	CSI055	0	0	0	0	0	0		0
	CSI076	0	0	0	0	0	0		0
##	ODIOTO		_	Otu13333		_	-	Otu133	•
	CSI001	0	0	0	0	0	0	004200	0
##	CSI012	0	0	0	0	0	0		0
	CSI022	0	0	0	0	0	0		0
##	CSI044	0	0	0	0	0	0		0
##	CSI055	0	0	0	0	0	0		0
##	CSI065	0	0	0	0	0	0		0
##	CSI076	0	0	0	0	0	0		0
##		Otu13338	Otu13339	Otu13340	Otu13341	Otu13342	Otu13343	Otu133	44
	CSI001	0	0	0	0	0	0		0
##	CSI012	0	0	0	0	0	0		0

```
## CSI022
                   0
                             0
                                                                                0
  CSI044
                   0
                             0
                                                  0
                                                            0
##
                                       0
                                                                      0
                                                                                0
  CSI055
                   0
                             0
                                                  0
                                                            0
                                                                                0
  CSI065
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
##
   CSI076
                   0
                                                  0
                                                            0
                                                                      0
##
                              Otu13346 Otu13347 Otu13348 Otu13349 Otu13350
               0tu13345
   CSI001 0.000000e+00 0.000000e+00
                                                0
                                                           0
                                                                     0
  CSI012 1.724971e-05 0.000000e+00
                                                0
                                                           0
                                                                     0
                                                                               0
   CSI022 0.000000e+00 0.000000e+00
                                                0
                                                           0
                                                                     0
                                                                               0
                                                0
                                                                     0
   CSI044 0.000000e+00 0.000000e+00
                                                           0
                                                                               0
   CSI055 0.000000e+00 0.000000e+00
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                                     0
   CSI065 0.000000e+00 0.000000e+00
                                                 0
                                                           0
                                                                               0
   CSI076 0.000000e+00 0.000000e+00
                                                0
                                                           0
                                                                     0
                                                                               0
           Otu13351 Otu13352 Otu13353 Otu13354 Otu13355 Otu13356
##
                                                                             0tu13357
## CSI001
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
                   0
## CSI012
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
  CSI022
                   0
                             0
                                                            0
                                                                      0 0.000000e+00
##
                                       0
                                                  0
   CSI044
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
## CSI055
                   0
                             0
                                                  0
                                                            0
                                       0
                                                                      0 0.00000e+00
## CSI065
                   0
                             0
                                       0
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                                                            0
                                                                      0 0.00000e+00
##
   CST076
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
##
           Otu13358 Otu13359
                                    Otu13360 Otu13361 Otu13362 Otu13363
## CSI001
                             0 0.000000e+00
                                                      0
                   0
                                                                0
                                                                           0
  CSI012
                   0
                             0 0.000000e+00
                                                      0
                                                                0
##
                                                                           0
## CSI022
                   0
                             0 0.00000e+00
                                                      0
                                                                0
                                                                           0
   CSI044
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                           0
   CSI055
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                           0
##
                             0
                             0 0.000000e+00
                                                      0
                                                                0
##
   CSI065
                   0
                                                                           0
                                                                0
   CSI076
                             0 0.000000e+00
                                                      0
                                                                           0
##
                   0
##
               Otu13364 Otu13365 Otu13366 Otu13367
                                                        Otu13368
                                                                  Otu13369 Otu13370
##
   CSI001 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
   CSI012 0.000000e+00
                                  0
                                            0
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   CSI022 0.000000e+00
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                                                                           0
                                                                                     0
   CSI044 0.000000e+00
                                  0
                                            0
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                                                                           0
   CSI055 0.000000e+00
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   CSI065 0.000000e+00
                                  0
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##
##
   CSI076 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
##
           Otu13371 Otu13372 Otu13373 Otu13374 Otu13375 Otu13376 Otu13377
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
## CSI012
                             0
                                       0
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                                                            0
                                                                      0
                                                                                0
                   0
## CSI022
                             0
                                                  0
                                                            0
                                                                      0
                                                                                0
                   0
                                       0
## CSI044
                   0
                             0
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                                                            0
                                                                      0
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   CSI055
##
                   0
                             0
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##
  CSI065
                   0
                                       0
                             0
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                                                            0
                                                                      0
                                                                                0
##
   CSI076
                   0
                     Otu13379
                               Otu13380 Otu13381 Otu13382 Otu13383
           Otu13378
##
                                                                        0tu13384
## CSI001
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
  CSI012
                                                            0
                                                                      0
##
                   0
                             0
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                                                  0
                                                                                0
##
  CSI022
                   0
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                                       0
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                                                            0
                                                                      0
                                                                                0
## CSI044
                   0
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                                       0
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                                                                                0
   CSI055
                   0
                             0
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                                                            0
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##
                                       0
## CSI065
                   0
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                                                            0
                                                                      0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           Otu13385 Otu13386
                                    Otu13387 Otu13388 Otu13389 Otu13390 Otu13391
```

```
## CSI001
                             0 0.00000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI012
                   0
                             0 0.000000e+00
                                                      0
                                                                                    0
                                                                0
                                                                          0
  CSI022
                   0
                             0 0.00000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
                                                                                    0
   CSI044
                   0
                             0
                               0.000000e+00
                                                      0
                                                                Λ
                                                                          0
##
##
   CSI055
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
                               0.000000e+00
                                                      0
                                                                0
                                                                                    0
##
   CSI065
                   0
                                                                          0
                             0 0.000000e+00
                                                      0
                                                                0
##
   CSI076
                                                                            Otu13398
##
               Otu13392 Otu13393 Otu13394 Otu13395
                                                        Otu13396
                                                                  Otu13397
   CSI001 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
                                 0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI012 0.000000e+00
                                            0
   CSI022 0.000000e+00
                                 0
                                            0
                                                      0
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                                                                          0
                                                                                    0
   CSI044 0.000000e+00
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   CSI055 0.000000e+00
                                 0
                                            0
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   CSI065 0.000000e+00
                                 0
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                                                                          0
   CSI076 2.890675e-05
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
           Otu13399 Otu13400 Otu13401 Otu13402 Otu13403
                                                                  Otu13404 Otu13405
## CSI001
                             0
                                                 0
                                                                                    0
                   0
                                       0
                                                           0 0.00000e+00
##
  CSI012
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI022
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
                   0
                                       0
## CSI044
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
##
  CSI055
                   0
                             0
                                       0
                                                 0
                                                           0 4.302833e-05
                                                                                    0
  CSI065
                             0
                                       0
                                                           0 0.000000e+00
                                                                                    0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    O
##
  CST076
                   0
           Otu13406
                     Otu13407
                               Otu13408 Otu13409 Otu13410 Otu13411 Otu13412
##
## CSI001
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI012
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI022
                   0
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                                       0
                                                 0
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                             0
                                                 0
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                                                                      0
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##
   CSI044
                   0
                                       0
                             0
                                                 0
                                                                      0
## CSI055
                   0
                                       0
                                                           0
                                                                                0
## CSI065
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
## CSI076
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu13413 Otu13414
                                    Otu13415 Otu13416 Otu13417 Otu13418 Otu13419
## CSI001
                   0
                             0 2.345326e-05
                                                      0
                                                                0
                                                                          0
                                                                                    0
## CSI012
                             0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
                   0
                                                      0
  CSI022
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                                    0
## CSI044
                             0
                                                                          0
## CSI055
                             0 0.000000e+00
                                                      0
                                                                0
                                                                                    0
## CSI065
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    O
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
   CSI076
                             0
                                   Otu13422 Otu13423 Otu13424 Otu13425 Otu13426
##
           Otu13420 Otu13421
                             0 0.00000e+00
                                                     0
## CSI001
                   0
                                                               0
                                                                         0
                                                                                   0
## CSI012
                   0
                             0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
                               0.00000e+00
                                                     0
## CSI022
                   0
                             0
                                                               0
                                                                         0
                                                                                   0
                   0
                                                     0
                                                                         0
##
  CSI044
                             0 3.94314e-05
                                                               0
                                                                                   0
                                                     0
                                                                         0
## CSI055
                   0
                             0 0.00000e+00
                                                               0
                                                                                   0
## CSI065
                                                     0
                             0 0.00000e+00
                                                                         0
                   0
                                                               0
                                                                                   0
                                                     0
##
   CSI076
                   0
                             0
                               0.00000e+00
                                                               0
                                                                         0
                                                                                   0
           Otu13427 Otu13428
##
                                    Otu13429 Otu13430
                                                             Otu13431 Otu13432
                                                      0 4.690652e-05
## CSI001
                   0
                             0 0.00000e+00
                                                                               0
## CSI012
                   0
                             0 0.00000e+00
                                                      0 0.00000e+00
                                                                               0
  CSI022
                   0
                             0 0.000000e+00
                                                                               0
##
                                                        0.000000e+00
## CSI044
                   0
                             0 0.00000e+00
                                                      0 0.00000e+00
                                                                               0
## CSI055
                   0
                             0 2.151417e-05
                                                      0 0.00000e+00
                                                                               0
## CSI065
                   0
                             0 0.000000e+00
                                                      0 0.00000e+00
                                                                               0
```

```
## CSI076
                 0
                          0 0.000000e+00
                                                0 0.000000e+00
                                                                        0
##
          Otu13433 Otu13434 Otu13435
## CSI001
                 0
                          0
## CSI012
                                    0
                 0
                          0
## CSI022
                 0
                          0
                                    0
                 0
                          0
## CSI044
                                    0
                 0
                          0
## CSI055
                                    0
## CSI065
                 0
                          0
                                    0
## CSI076
                 0
                          0
                                    0
    [ reached getOption("max.print") -- omitted 4 rows ]
               CSI_ID
                           Date Date2 Replicate Number
                                                             Tank_Name
  CSI002 ECU_CSI_002 11-Jun-15
                                     0
                                               Α
                                                      2 A2 2015-June11
  CSI013 ECU_CSI_013 11-Jun-15
                                     0
                                               В
                                                      2 B2_2015-June11
  CSI023 ECU_CSI_024 11-Jun-15
                                     0
                                               C
                                                      2 C2 2015-June11
## CSI034 ECU_CSI_035 11-Jun-15
                                    0
                                               D
                                                      2 D2_2015-June11
## CSI045 ECU_CSI_222 26-Jul-15
                                    45
                                               Α
                                                      2 A2_2015-July25
                                    45
  CSI056 ECU_CSI_233 26-Jul-15
                                               В
                                                      2 B2_2015-July25
  CSI066 ECU CSI 244 26-Jul-15
                                    45
                                               C
                                                      2 C2 2015-July25
          Salinity Dispersal
                                 Otu00001
                                               Otu00002
##
                                                            0t_{11}00003
## CSI002
                 0
                     Source0 1.362194e-03 0.1502363406 1.362194e-05
## CSI013
                 0
                     Source0 8.309098e-04 0.1535265731 3.195807e-05
## CSI023
                 0
                     Source0 1.632820e-04 0.1221349117 4.082049e-05
## CSI034
                 0
                     Source0 1.326436e-03 0.0559945427 5.684725e-05
                 0
                     Source0 9.795279e-05 0.0444379143 0.000000e+00
## CST045
## CSI056
                     Source0 1.959286e-05 0.0027234076 1.959286e-05
## CSI066
                 0
                     Source0 1.150108e-04 0.0314554621 1.916847e-05
              Otu00004
                           Otu00005
                                         Otu00006
                                                      Otu00007
  CSI002 1.682990e-01 4.086581e-05 0.0164008119 6.524908e-03 0.0059391644
   CSI013 1.821610e-03 6.391614e-05 0.0487999744 8.660637e-03 0.0083410565
  CSI023 0.000000e+00 2.041025e-05 0.0085314828 1.894071e-02 0.2008980508
  CSI034 1.421181e-03 1.136945e-04 0.0425596422 1.690258e-02 0.0121463627
  CSI045 0.000000e+00 3.265093e-05 0.0051588468 6.931792e-02 0.0249126588
  CSI056 3.918572e-05 5.877858e-05 0.0003526715 4.862948e-02 0.0004310429
## CSI066 5.367172e-04 1.916847e-05 0.0009392551 4.824704e-02 0.0018785102
              Otu00009
                           Otu00010
                                         Otu00011
                                                      0t_{11}00012
                                                                   Otu00013
## CSI002 2.016047e-03 1.362194e-05 1.362194e-05 0.000000e+00 0.004808544
  CSI013 9.587421e-05 0.000000e+00 0.000000e+00 0.000000e+00 0.007669937
## CSI023 2.041025e-05 0.000000e+00 0.000000e+00 0.000000e+00 0.018961118
## CSI034 1.136945e-04 0.000000e+00 1.894908e-05 0.000000e+00 0.019725996
## CSI045 1.406602e-01 3.265093e-05 0.000000e+00 3.265093e-05 0.023018905
## CSI056 3.742236e-03 0.000000e+00 1.959286e-05 0.000000e+00 0.015948588
## CSI066 2.110449e-02 1.916847e-05 0.000000e+00 0.000000e+00 0.031072093
              Otu00014
                           Otu00015
                                         Otu00016
                                                      0 \pm 1100017
                                                                    0 \pm 1100018
## CSI002 0.000000e+00 2.724387e-05 0.000000e+00 1.961559e-02 2.724387e-05
## CSI013 3.195807e-05 0.000000e+00 9.587421e-05 3.195807e-05 3.195807e-05
## CSI023 2.041025e-05 0.000000e+00 0.000000e+00 1.264415e-01 0.000000e+00
## CSI034 1.894908e-05 0.000000e+00 0.000000e+00 1.724367e-03 0.000000e+00
## CSI045 6.530186e-05 0.000000e+00 0.000000e+00 3.150815e-02 0.000000e+00
## CSI056 1.959286e-05 0.000000e+00 0.000000e+00 4.277121e-02 9.796430e-05
## CSI066 0.000000e+00 0.000000e+00 0.000000e+00 5.731373e-03 1.916847e-05
##
              Otu00019
                           Otu00020
                                         Otu00021
                                                      Otu00022
                                                                    Otu00023
## CSI002 0.0331149283 0.0089768563 0.000000e+00 1.362194e-05 4.086581e-05
## CSI013 0.0471701128 0.0003515388 0.000000e+00 0.000000e+00 1.278323e-04
```

```
## CSI023 0.0041432799 0.1313807531 0.000000e+00 0.000000e+00 4.082049e-05
  CSI034 0.0231178823 0.0192712182 1.894908e-05 1.894908e-05 1.326436e-04
  CSI045 0.0005550658 0.0127991641 0.000000e+00 0.000000e+00 3.265093e-05
  CSI056 0.0018025432 0.0000000000 0.000000e+00 0.000000e+00 1.959286e-05
##
   CSI066 0.0032011348 0.0032969771 7.667389e-05 1.916847e-05 2.683586e-04
              Otu00024
                           Otu00025
                                        Otu00026
##
                                                      Otu00027
                                                                   Ot:1100028
  CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 5.040117e-04
## CSI013 3.195807e-05 0.000000e+00 0.000000e+00 0.000000e+00 9.907002e-04
  CSI023 0.000000e+00 2.041025e-05 0.000000e+00 2.041025e-05 3.877947e-04
  CSI034 3.789817e-05 0.000000e+00 0.000000e+00 5.684725e-05 3.789817e-04
  CSI045 3.265093e-05 0.000000e+00 8.802690e-02 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 1.959286e-05 0.000000e+00 0.000000e+00 3.918572e-05
   CSI066 0.000000e+00 0.000000e+00 1.326458e-02 3.833694e-05 0.000000e+00
              Otu00029
##
                           Otu00030
                                        Otu00031 Otu00032
                                                               Otu00033
  CSI002 4.086581e-05 6.704717e-02 1.408508e-02
                                                         0 1.819891e-02
   CSI013 0.000000e+00 4.109808e-02 3.195807e-05
                                                         0 4.074654e-02
  CSI023 2.041025e-05 1.455251e-02 5.055618e-02
                                                         0 8.021227e-03
   CSI034 0.000000e+00 2.349686e-03 3.031853e-04
                                                         0 1.110985e-01
  CSI045 0.000000e+00 8.358638e-03 5.550658e-04
                                                         0.0.000000e+00
  CSI056 0.000000e+00 5.877858e-05 1.175572e-04
                                                         0 3.330786e-04
##
  CSI066 0.000000e+00 6.325596e-04 2.091280e-02
                                                         0 3.833694e-05
                           Otu00035
                                        Otu00036 Otu00037
##
              Ot:1100034
                                                               Ot:1100038
## CSI002 0.000000e+00 0.000000e+00 0.0027243874
                                                         0 0.00000e+00
  CSI013 0.000000e+00 0.000000e+00 0.0002556646
                                                         0 3.195807e-05
  CSI023 0.000000e+00 0.000000e+00 0.0005918971
                                                         0 0.000000e+00
  CSI034 0.000000e+00 1.894908e-05 0.0054952343
                                                         0 0.000000e+00
  CSI045 0.000000e+00 0.000000e+00 0.0002612074
                                                         0 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00 0.0010580145
                                                         0 1.959286e-05
   CSI066 0.000000e+00 3.833694e-05 0.0078782419
                                                         0 0.00000e+00
##
              Otu00039
                           Otu00040
                                        Otu00041
                                                     Otu00042
                                                                  Otu00043
   CSI002 0.000000e+00 0.0027516312 2.724387e-05 0.003378240 0.0086499298
   CSI013 0.000000e+00 0.0031318910 0.000000e+00 0.005848327 0.0043782557
   CSI023 0.000000e+00 0.0002653332 0.000000e+00 0.001040923 0.0069394836
  CSI034 1.894908e-05 0.0071817028 3.789817e-05 0.005229947 0.0079396661
   CSI045 0.000000e+00 0.1168250237 0.000000e+00 0.004571130 0.0043099226
  CSI056 0.000000e+00 0.0004114501 0.000000e+00 0.044750093 0.0035854934
  CSI066 0.000000e+00 0.0517740421 0.000000e+00 0.015277272 0.0050221396
##
                           Otu00045 Otu00046
                                                  Otu00047 Otu00048
              Ot.1100044
  CSI002 1.362194e-05 0.000000e+00
                                           0 0.00000e+00
                                                                  0
  CSI013 0.000000e+00 3.195807e-05
                                                                  0
                                           0 0.00000e+00
  CSI023 0.000000e+00 2.041025e-05
                                           0 0.00000e+00
                                                                  0
  CSI034 1.894908e-05 0.000000e+00
                                                                  0
                                           0 1.894908e-05
  CSI045 0.000000e+00 0.000000e+00
                                           0 0.000000e+00
                                                                  0
                                                                  0
  CSI056 5.877858e-05 0.000000e+00
                                           0 0.000000e+00
  CSI066 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                  0
##
              Otu00049
                           Otu00050
                                        Otu00051
                                                     Otu00052
                                                                  Otu00053
  CSI002 0.0013485717 0.0012395962 3.909496e-03 0.001798096 0.000000e+00
   CSI013 0.0063596561 0.0018216100 7.701895e-03 0.007925602 0.000000e+00
  CSI023 0.0006123074 0.0126747627 1.218492e-02 0.003122768 0.000000e+00
  CSI034 0.0064426885 0.0279309495 2.548652e-02 0.007693328 1.894908e-05
  CSI045 0.0009795279 0.0010121788 1.632546e-03 0.000000000 0.000000e+00
  CSI056 0.0616195458 0.0009796430 6.602794e-03 0.001371500 0.000000e+00
  CSI066 0.0020126895 0.0018210048 1.853591e-02 0.000000000 0.000000e+00
##
              Otu00054
                           Otu00055
                                        Otu00056
                                                      Otu00057
                                                                   Ot:1100058
```

```
## CSI002 2.724387e-05 0.000000e+00 0.000000e+00 1.362194e-05 0.000000e+00
  CSI013 6.391614e-05 0.000000e+00 0.000000e+00 0.000000e+00 3.195807e-05
  CSI023 2.041025e-05 2.041025e-05 0.000000e+00 2.041025e-05 0.000000e+00
  CSI034 1.326436e-04 0.000000e+00 0.000000e+00 0.000000e+00 3.789817e-05
  CSI045 1.972116e-02 0.000000e+00 3.265093e-05 0.000000e+00 0.000000e+00
  CSI056 2.453026e-02 0.000000e+00 0.000000e+00 0.000000e+00 3.918572e-05
   CSI066 2.599245e-02 0.000000e+00 0.000000e+00 0.000000e+00 1.916847e-05
                                       Otu00061 Otu00062
##
              Ot:1100059
                          Otu00060
                                                             Ot:1100063
## CSI002 6.320579e-03 9.535356e-05 1.634632e-04
                                                       0 1.362194e-05
  CSI013 1.728932e-02 5.752453e-04 0.000000e+00
                                                       0 0.00000e+00
  CSI023 1.122564e-03 2.041025e-05 0.000000e+00
                                                       0 0.00000e+00
  CSI034 2.004813e-02 1.667519e-03 1.894908e-05
                                                       0 0.00000e+00
  CSI045 4.571130e-04 9.044307e-03 6.921997e-03
                                                       0 0.000000e+00
   CSI056 5.290072e-04 4.192872e-03 2.919336e-03
                                                        0 0.000000e+00
  CSI066 2.223543e-03 4.236232e-03 7.519791e-02
                                                       0 0.000000e+00
##
              Otu00064
                          Otu00065
                                       Otu00066
                                                    Otu00067
                                                                 Otu00068
  CSI002 0.000000e+00 1.362194e-05 0.000000e+00 0.000000e+00 2.724387e-05
   CSI013 0.000000e+00 0.000000e+00 3.195807e-05 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00 1.894908e-05 1.326436e-04 0.000000e+00 0.000000e+00
  CSI045 0.000000e+00 0.000000e+00 6.530186e-05 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00 1.959286e-05 3.722643e-04 0.000000e+00 0.000000e+00
  CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
              Otu00069
                          Otu00070
                                       Otu00071
                                                    Otu00072
## CSI002 0.000000e+00 2.724387e-05 1.362194e-05 0.0001770852 1.089755e-04
  CSI013 6.391614e-05 0.000000e+00 3.195807e-05 0.0000000000 3.195807e-05
  CSI034 1.894908e-05 1.894908e-05 1.894908e-05 0.0000000000 0.000000e+00
  CSI045 1.632546e-04 0.000000e+00 0.000000e+00 0.0000000000 3.265093e-05
  CSI056 0.000000e+00 1.959286e-05 3.918572e-05 0.0000000000 0.000000e+00
##
  CSI066 1.136690e-02 1.341793e-04 3.833694e-05 0.0000000000 1.916847e-05
##
              Otu00074
                          Otu00075
                                       Otu00076
                                                    Otu00077 Otu00078
  CSI002 0.000000e+00 1.362194e-05 0.000000e+00 0.000000e+00
                                                                    0
  CSI013 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
  CSI023 3.571793e-03 0.000000e+00 0.000000e+00 4.082049e-05
                                                                    0
  CSI034 3.789817e-05 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
  CSI045 1.234205e-02 0.000000e+00 0.000000e+00 0.000000e+00
  CSI056 5.184271e-02 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
  CSI066 1.150108e-04 0.000000e+00 1.916847e-05 0.000000e+00
                          Otu00080 Otu00081
##
              Otu00079
                                                Otu00082 Otu00083
## CSI002 2.996826e-04 0.000000e+00
                                          0 1.089755e-04
                                                                 0
## CSI013 0.000000e+00 0.000000e+00
                                                                 0
                                          0.000000e+00
## CSI023 8.164098e-05 0.000000e+00
                                          0 2.041025e-05
                                                                 0
## CSI034 0.000000e+00 0.000000e+00
                                                                 0
                                          0 1.515927e-04
## CSI045 3.265093e-05 0.000000e+00
                                          0 3.265093e-04
                                                                 0
## CSI056 0.000000e+00 0.000000e+00
                                                                 0
                                          0 1.959286e-05
##
  CSI066 9.584236e-05 0.000000e+00
                                          0 2.593494e-02
                                                                 0
##
              Otu00084 Otu00085
                                   Otu00086
                                               Otu00087
                                                            Otu00088
## CSI002 1.716364e-03
                             0 0.000000e+00 0.000000000 5.036030e-02
## CSI013 9.587421e-05
                             0 3.195807e-05 0.000000000 1.262344e-02
                             0 0.000000e+00 0.000000000 3.784060e-02
## CSI023 0.000000e+00
## CSI034 2.103348e-03
                             0 0.000000e+00 0.000000000 1.894908e-05
## CSI045 7.803572e-03
                             0 0.000000e+00 0.000000000 9.795279e-05
## CSI056 2.488293e-03
                             0 0.000000e+00 0.00000000 0.000000e+00
```

```
## CSI066 5.313500e-02
                              0 0.000000e+00 0.007609883 9.584236e-05
                           0t.1100090
##
              Otu00089
                                        Otu00091
                                                      Ot:1100092
                                                                   Ot:1100093
## CSI002 0.000000e+00 8.173162e-05 2.451949e-04 0.000000e+00 0.0006402310
  CSI013 1.342239e-03 7.669937e-04 0.000000e+00 0.000000e+00 0.0307756224
  CSI023 1.632820e-04 1.004184e-02 0.000000e+00 0.000000e+00 0.0001428717
## CSI034 1.894908e-05 2.785515e-03 2.273890e-04 1.894908e-05 0.0000000000
  CSI045 2.416169e-03 1.534594e-03 1.208084e-03 0.000000e+00 0.0045058282
## CSI056 2.155215e-04 4.898215e-04 8.268187e-03 0.000000e+00 0.0015282431
  CSI066 3.450325e-04 1.073434e-03 5.309667e-03 0.000000e+00 0.0053671721
              Otu00094 Otu00095
                                                  Otu00097 Otu00098 Otu00099
##
                                    Otu00096
## CSI002 0.000000e+00
                              0 0.000000e+00 1.362194e-05
                                                                  0
                                                                           0
## CSI013 0.000000e+00
                              0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
## CSI023 0.000000e+00
                              0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
                              0 0.000000e+00 0.000000e+00
## CSI034 0.000000e+00
                                                                  0
                                                                           0
                              0 0.000000e+00 0.000000e+00
## CSI045 0.000000e+00
                                                                  0
                                                                           0
  CSI056 0.000000e+00
                              0 0.000000e+00 0.000000e+00
                                                                  0
##
  CSI066 1.916847e-05
                              0 0.000000e+00 0.000000e+00
                                                                  0
##
              Otu00100
                           Otu00101
                                        Otu00102
                                                      Otu00103
## CSI002 0.000000e+00 2.724387e-05 0.000000e+00 1.362194e-05 0.0039503617
## CSI013 0.000000e+00 3.195807e-05 0.000000e+00 2.876226e-04 0.0097791697
## CSI023 0.000000e+00 0.000000e+00 2.041025e-05 0.000000e+00 0.0142871722
  CSI034 1.894908e-05 0.000000e+00 1.894908e-05 3.410835e-04 0.0071059064
## CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.0138439939
  CSI056 0.000000e+00 0.000000e+00 0.000000e+00 1.273536e-03 0.0022139932
  CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.0087599916
##
              Otu00105
                           Otu00106
                                        Otu00107
                                                      Otu00108 Otu00109
## CSI002 2.152266e-03 1.362194e-05 0.0000000000 1.362194e-05
                                                                      0
  CSI013 4.825669e-03 0.000000e+00 0.0001278323 1.607491e-02
                                                                      0
  CSIO23 4.082049e-05 0.000000e+00 0.0000000000 4.592305e-03
                                                                      0
  CSI034 7.295397e-03 0.000000e+00 0.0000000000 1.136945e-04
                                                                      0
  CSI045 2.612074e-03 0.000000e+00 0.0736278447 0.000000e+00
                                                                      0
  CSI056 1.371500e-03 0.000000e+00 0.0155371383 4.702286e-04
                                                                      0
   CSI066 2.760260e-03 0.000000e+00 0.0012076137 3.833694e-05
##
              Otu00110
                           Otu00111
                                        Otu00112
                                                      Otu00113
                                                                   Otu00114
  CSI002 1.362194e-05 4.658702e-03 8.173162e-05 2.724387e-05 0.000000e+00
  CSI013 3.195807e-05 1.278323e-04 7.030776e-04 7.094692e-03 0.000000e+00
  CSI023 2.041025e-05 2.694152e-03 1.245025e-03 5.102561e-04 2.041025e-05
  CSI034 0.000000e+00 2.463381e-04 9.853524e-04 0.000000e+00 0.000000e+00
  CSI045 0.000000e+00 2.938584e-02 1.012179e-03 4.407875e-03 0.000000e+00
  CSI056 0.000000e+00 1.136386e-03 8.033073e-04 6.918239e-02 0.000000e+00
  CSI066 0.000000e+00 1.705994e-03 3.431156e-03 3.814526e-02 0.000000e+00
##
              0t_{11}00115
                           Otu00116
                                        0t_{11}00117
                                                      Otu00118 Otu00119
  CSI002 0.000000e+00 0.0077645040 1.430303e-03 3.987141e-02
                                                                      0
  CSI013 0.000000e+00 0.0063916142 1.661820e-03 9.587421e-05
                                                                      0
  CSI023 0.000000e+00 0.0007143586 3.265639e-04 0.000000e+00
                                                                      0
  CSI034 0.000000e+00 0.0070869573 7.958615e-04 3.789817e-05
                                                                      0
  CSI045 0.000000e+00 0.0013060372 3.918111e-04 3.265093e-05
                                                                      0
   CSI056 1.959286e-05 0.0013127216 1.829973e-02 0.000000e+00
##
  CSI066 0.000000e+00 0.0033161456 0.000000e+00 0.000000e+00
          Otu00120
                       Otu00121
                                    Otu00122 Otu00123
                                                           Otu00124 Otu00125
##
                 0 0.000000e+00 1.266840e-03
## CSI002
                                                     0 0.00000e+00
                                                                           0
## CSI013
                 0 1.597904e-04 0.000000e+00
                                                     0 0.00000e+00
                                                                           0
## CSI023
                 0 2.041025e-05 2.245127e-04
                                                     0 0.000000e+00
                                                                           0
## CSI034
                 0 0.000000e+00 7.579634e-04
                                                     0 0.000000e+00
```

```
## CSI045
                 0 0.000000e+00 2.285565e-04
                                                     0 0.00000e+00
                                                                           0
## CSI056
                 0 0.000000e+00 2.351143e-04
                                                     0 1.959286e-05
                                                                           0
  CSI066
                 0 2.683586e-03 4.792118e-04
                                                     0 0.000000e+00
                           Otu00127 Otu00128
##
              Ot:1100126
                                                  Ot:1100129
                                                               Ot:1100130
  CSI002 0.000000e+00 2.179510e-04
                                           0 8.309381e-04 1.362194e-05
## CSI013 0.000000e+00 1.259148e-02
                                           0 6.391614e-05 0.000000e+00
  CSI023 0.000000e+00 4.082049e-05
                                           0 6.123074e-05 0.000000e+00
                                           0 9.853524e-04 0.000000e+00
## CSI034 1.894908e-05 6.442688e-03
  CSI045 3.265093e-05 6.530186e-05
                                           0 1.861103e-03 0.000000e+00
  CSI056 1.379337e-02 3.918572e-05
                                           0 3.989106e-02 0.000000e+00
   CSI066 3.492496e-02 4.466254e-03
                                           0 1.725162e-04 0.000000e+00
##
              Otu00131
                           Otu00132
                                        Otu00133
                                                      Otu00134 Otu00135
##
  CSI002 2.724387e-05 9.535356e-05 0.000000e+00 2.329351e-03
                                                                      0
  CSI013 0.000000e+00 1.949442e-03 0.000000e+00 1.917484e-03
                                                                      0
  CSI023 2.041025e-05 0.000000e+00 0.000000e+00 3.673844e-04
                                                                      0
  CSI034 1.894908e-04 1.364334e-02 1.894908e-05 4.528831e-03
                                                                      0
  CSI045 3.591602e-04 7.509714e-04 0.000000e+00 9.795279e-05
                                                                      0
   CSI056 8.875566e-03 0.000000e+00 5.897451e-03 3.307275e-02
                                                                      0
  CSI066 1.916847e-05 2.051026e-03 0.000000e+00 1.150108e-04
                                                                      0
              Otu00136
                           Otu00137
                                        Otu00138
                                                      Ot:1100139
                                                                   Otu00140
  CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI013 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00 2.041025e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00 0.000000e+00 1.894908e-05 1.894908e-05 1.894908e-05
  CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI066 0.000000e+00 3.450325e-04 0.000000e+00 0.000000e+00 0.000000e+00
              Otu00141
                           Otu00142
                                        Otu00143
                                                      Otu00144
                                                                   Otu00145
  CSI002 1.294084e-02 1.362194e-05 6.129872e-04 0.0020569125 0.0000000000
  CSI013 9.044134e-03 3.195807e-05 1.757694e-03 0.0049215429 0.0000000000
  CSI023 2.163486e-03 0.000000e+00 1.632820e-04 0.0003265639 0.0000000000
  CSI034 4.130900e-03 5.684725e-05 1.042200e-03 0.0027665662 0.0000000000
   CSI045 1.959056e-04 6.660789e-03 1.306037e-04 0.0029712345 0.0000000000
  CSI056 1.763357e-04 0.000000e+00 5.877858e-05 0.0006269715 0.0003330786
   CSI066 5.175487e-04 1.040848e-02 6.900650e-04 0.0003833694 0.0009200866
                                             Otu00149
          Otu00146 Otu00147
##
                                0tu00148
                                                           Ot:1100150
## CSI002
                 0
                          0 1.294084e-03 1.362194e-05 0.000000e+00
## CSI013
                 0
                          0 4.601962e-03 0.000000e+00 0.000000e+00
                 0
                          0 6.123074e-05 0.000000e+00 0.000000e+00
## CST023
                 Λ
                          0 1.771739e-02 0.000000e+00 0.000000e+00
## CSI034
  CSI045
                 0
                          0 3.265093e-05 0.000000e+00 0.000000e+00
                          0 1.959286e-05 0.000000e+00 0.000000e+00
##
  CSI056
                 0
##
  CSI066
                 0
                          0 9.584236e-05 0.000000e+00 0.000000e+00
##
              Otu00151
                           Otu00152
                                        Otu00153
                                                                   Otu00155
                                                      Otu00154
  CSI002 1.634632e-03 2.261242e-03 0.000000e+00 0.000000e+00 0.000000e+00
  CSI013 6.391614e-05 2.940143e-03 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023 5.631187e-02 2.857434e-04 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 8.716579e-04 6.158452e-03 1.894908e-05 1.894908e-05 0.000000e+00
  CSI045 0.000000e+00 8.162732e-04 0.000000e+00 3.265093e-05 6.530186e-05
  CSI056 0.000000e+00 1.273536e-03 0.000000e+00 0.000000e+00 0.000000e+00
  CSI066 0.000000e+00 1.744331e-03 0.000000e+00 3.833694e-05 0.000000e+00
##
             Otu00156
                          Otu00157
                                       Otu00158
                                                     Otu00159
## CSI002 0.029750310 4.086581e-05 0.0001634632 4.372642e-03 3.119424e-03
## CSI013 0.002269023 0.000000e+00 0.0010865744 1.009875e-02 1.629862e-03
```

```
## CSI023 0.002857434 1.673640e-03 0.0167159914 6.123074e-04 5.510766e-04
  CSI034 0.001042200 0.000000e+00 0.0002842363 7.958615e-03 9.304000e-03
   CSI045 0.000000000 1.306037e-04 0.0003265093 4.571130e-04 1.044830e-03
  CSI056 0.000000000 0.000000e+00 0.0000000000 1.018829e-03 5.094144e-04
##
   CSI066 0.000000000 1.571815e-03 0.0000000000 7.667389e-05 3.450325e-04
              Otu00161
                           Otu00162
##
                                         Otu00163
                                                      Otu00164 Otu00165
  CSI002 0.000000e+00 0.0000000000 1.319966e-02 0.000000e+00
                                                                       0
  CSI013 0.000000e+00 0.0001917484 1.738519e-02 0.000000e+00
                                                                       0
   CSI023 0.000000e+00 0.0000000000 2.979896e-03 0.000000e+00
                                                                       0
   CSI034 0.000000e+00 0.0000000000 2.218938e-02 0.000000e+00
                                                                       0
   CSI045 0.000000e+00 0.0000000000 6.530186e-05 0.000000e+00
                                                                       0
   CSI056 0.000000e+00 0.0000000000 7.837144e-05 0.000000e+00
                                                                       0
   CSI066 0.000000e+00 0.0000000000 1.916847e-05 0.000000e+00
                                                                       0
                                                                    Otu00170
##
              Otu00166
                           Otu00167
                                         Otu00168
                                                      Otu00169
  CSI002 0.000000e+00 0.000000e+00 0.000000e+00 6.334201e-03 1.437114e-02
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00 4.058675e-03 8.692595e-03
   CSI023 2.041025e-05 3.000306e-03 0.000000e+00 2.408409e-03 9.592816e-04
   CSI034 0.000000e+00 3.221344e-04 0.000000e+00 1.584143e-02 1.557615e-02
  CSI045 0.000000e+00 2.612074e-04 0.000000e+00 4.832337e-03 9.795279e-05
   CSI056 0.000000e+00 2.703815e-03 0.000000e+00 3.918572e-05 7.641216e-04
##
  CSI066 0.000000e+00 9.584236e-05 0.000000e+00 9.967605e-04 3.450325e-04
                           Otu00172
##
              Ot:1100171
                                         0t.1100173
                                                      Ot:1100174 Ot:1100175
  CSI002 0.000000e+00 0.000000e+00 0.000000e+00 1.362194e-05
                                                                       0
   CSI013 3.195807e-05 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
  CSI034 0.000000e+00 0.000000e+00 0.000000e+00 1.894908e-05
                                                                       0
  CSIO45 0.000000e+00 0.000000e+00 0.000000e+00 6.530186e-05
                                                                       0
   CSI056 0.000000e+00 5.877858e-05 3.918572e-05 7.249358e-04
                                                                       0
   CSI066 0.000000e+00 3.331480e-02 0.000000e+00 3.450325e-04
                                                                       0
##
##
              Otu00176
                           Otu00177
                                         Otu00178
                                                      Otu00179 Otu00180
   CSI002 0.000000e+00 0.0012804621 2.724387e-05 0.000000e+00
                                                                       0
   CSI013 0.000000e+00 0.0028442683 0.000000e+00 0.000000e+00
                                                                       0
   CSI023 0.000000e+00 0.0004082049 2.041025e-05 0.000000e+00
                                                                       0
  CSI034 0.000000e+00 0.0039224603 1.894908e-05 0.000000e+00
                                                                       0
   CSI045 0.000000e+00 0.0010448297 1.632546e-03 3.265093e-05
                                                                       0
  CSI056 0.000000e+00 0.0022923647 1.959286e-05 1.959286e-05
                                                                       0
   CSI066 0.000000e+00 0.0020893634 0.000000e+00 0.000000e+00
                                                                       0
          Otu00181 Otu00182
                                Otu00183 Otu00184 Otu00185
                                                                 Otu00186
##
## CSI002
                          0 1.212352e-03
                                                 0
                 0
                                                          0 0.0057348354
## CSI013
                 0
                          0 0.00000e+00
                                                 0
                                                          0 0.0066153207
## CSI023
                 0
                          0 6.123074e-05
                                                 0
                                                          0 0.0006123074
                 0
                                                 0
## CST034
                          0 1.894908e-05
                                                          0 0.0061584522
##
  CSI045
                 0
                          0 8.162732e-04
                                                 0
                                                          0 0.000000000
                 0
                          0 0.000000e+00
                                                 0
                                                          0 0.0000000000
##
  CSI056
##
  CSI066
                          0 1.725162e-04
                                                          0 0.000000000
          Otu00187
##
                       Otu00188
                                     Otu00189
                                                  Otu00190
                                                                Otu00191
## CSI002
                 0 2.683522e-03 3.133045e-04 0.000000e+00 5.448775e-05
##
  CSI013
                 0 4.793711e-04 0.000000e+00 0.000000e+00 6.391614e-05
  CSI023
                 0 1.626697e-02 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034
                 0 0.000000e+00 4.737271e-04 0.000000e+00 3.600326e-04
##
                 0 7.509714e-04 1.306037e-04 0.000000e+00 0.000000e+00
##
  CSI045
## CSI056
                 0 1.959286e-05 1.116793e-03 1.959286e-05 0.000000e+00
## CSI066
                 0 0.000000e+00 3.833694e-04 1.916847e-05 0.000000e+00
##
              Otu00192
                           Otu00193
                                         Otu00194 Otu00195
                                                               Ot:1100196
```

```
## CSI002 1.362194e-05 1.362194e-05 0.000000e+00
                                                         0 6.266091e-04
## CSI013 4.474130e-04 0.000000e+00 0.000000e+00
                                                         0 1.182449e-03
                                                         0 1.632820e-04
## CSI023 0.000000e+00 0.000000e+00 0.000000e+00
## CSI034 3.789817e-04 0.000000e+00 0.000000e+00
                                                         0 1.951756e-03
  CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0 2.938584e-04
  CSI056 5.172515e-03 0.000000e+00 3.722643e-04
                                                         0 0.00000e+00
  CSI066 1.322625e-03 0.000000e+00 7.667389e-05
                                                         0 7.667389e-05
##
          Otu00197
                       Ot:1100198
                                    Ot:1100199
                                                  Otu00200
                                                               Ot:1100201
## CSI002
                 0 0.000000000 0.000000e+00 0.000000e+00 2.179510e-03
## CSI013
                 0 0.000000000 0.000000e+00 3.195807e-05 1.597904e-03
## CSI023
                 0 0.000000000 4.082049e-05 2.653332e-04 4.082049e-05
                 0 0.0001705418 1.004301e-03 1.326436e-04 2.596024e-03
## CSI034
## CSI045
                 0.0260227903 0.000000e+00 0.000000e+00 5.224149e-04
## CSI056
                 0 0.0165755599 0.000000e+00 0.000000e+00 7.053430e-04
  CSI066
                 0 0.0039870421 0.000000e+00 1.916847e-05 8.434128e-04
##
##
              Otu00202
                           Otu00203
                                        Otu00204 Otu00205
                                                               Otu00206
  CSI002 0.000000e+00 1.264116e-02 0.0013077059
                                                         0 6.810968e-05
  CSI013 0.000000e+00 1.367805e-02 0.0007350356
                                                         0 1.246365e-03
## CSI023 6.735381e-04 1.020512e-03 0.0000000000
                                                         0 2.041025e-05
## CSI034 4.547780e-04 1.068728e-02 0.0008337597
                                                         0 9.474542e-04
  CSI045 0.000000e+00 0.000000e+00 0.0034936494
                                                         0 6.530186e-05
  CSI056 1.959286e-05 0.000000e+00 0.0003134858
                                                         0 1.959286e-05
## CSI066 0.000000e+00 1.533478e-04 0.0033736510
                                                         0 3.833694e-05
              Otu00207 Otu00208
                                    Otu00209
                                                  Otu00210
                                                               Otu00211
## CSI002 1.362194e-05
                              0 0.000000e+00 1.362194e-05 4.222800e-04
  CSI013 0.000000e+00
                              0 0.000000e+00 3.195807e-05 0.000000e+00
## CSI023 0.000000e+00
                              0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI034 0.000000e+00
                              0 0.000000e+00 9.474542e-05 4.737271e-03
## CSI045 0.000000e+00
                              0 0.000000e+00 7.183204e-04 1.306037e-04
## CSI056 1.959286e-05
                              0 0.000000e+00 2.938929e-04 0.000000e+00
##
  CSI066 0.000000e+00
                              0 3.833694e-05 7.284019e-04 3.833694e-05
##
              Otu00212
                           Otu00213
                                        Otu00214
                                                      Otu00215 Otu00216
  CSI002 0.000000e+00 0.000000e+00 7.219626e-04 1.362194e-05
                                                                      0
  CSI013 0.000000e+00 0.000000e+00 2.173149e-03 0.000000e+00
                                                                      0
  CSI023 0.000000e+00 0.000000e+00 2.041025e-05 2.041025e-05
                                                                      0
  CSI034 0.000000e+00 0.000000e+00 1.326436e-03 1.894908e-05
                                                                      0
  CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
  CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
  CSI066 0.000000e+00 0.000000e+00 5.750542e-05 0.000000e+00
                           Otu00218
                                        Otu00219 Otu00220
##
              Otu00217
                                                               Otu00221
## CSI002 0.0000000000 1.389438e-03 3.405484e-04
                                                         0 2.724387e-05
## CSI013 0.0000000000 1.949442e-03 1.661820e-03
                                                         0 0.00000e+00
## CSI023 0.0000000000 6.939484e-04 6.123074e-05
                                                         0 0.00000e+00
## CSI034 0.0000000000 2.179145e-03 3.600326e-04
                                                         0 0.000000e+00
  CSI045 0.0000000000 6.530186e-05 3.265093e-05
                                                         0 0.00000e+00
  CSI056 0.0000000000 1.018829e-03 3.918572e-05
                                                         0 0.00000e+00
##
  CSI066 0.0082616113 1.073434e-03 0.000000e+00
                                                         0 0.00000e+00
##
              Otu00222
                           Otu00223
                                        Otu00224
                                                      Otu00225
                                                                   Otu00226
## CSI002 0.0009535356 1.334950e-03 5.448775e-05 0.0000000000 0.000000e+00
## CSI013 0.0024607715 1.278323e-03 4.474130e-04 0.0000000000 0.000000e+00
## CSI023 0.0006123074 2.041025e-05 0.000000e+00 0.0000000000 0.000000e+00
## CSI034 0.0022359919 3.865613e-03 1.515927e-04 0.0000000000 0.000000e+00
## CSI045 0.0002285565 3.265093e-05 0.000000e+00 0.0000000000 0.000000e+00
## CSI056 0.0015674288 2.116029e-03 3.330786e-03 0.0053292580 1.959286e-05
```

```
## CSI066 0.0037186835 1.916847e-05 1.725162e-03 0.0001150108 0.000000e+00
##
              Otu00227 Otu00228
                                     Otu00229 Otu00230 Otu00231
                                                                     Ot:1100232
## CSI002 0.000000e+00
                              0 8.173162e-05
                                                     0
                                                               0 0.00000e+00
  CSI013 0.000000e+00
                              0 7.989518e-04
                                                     0
                                                              0 0.00000e+00
## CSI023 0.000000e+00
                              0 2.653332e-04
                                                     0
                                                               0 2.653332e-04
                              0 1.080098e-03
## CSI034 0.000000e+00
                                                     0
                                                              0 0.00000e+00
## CSI045 0.000000e+00
                              0 2.285565e-04
                                                     0
                                                               0 0.00000e+00
## CSI056 0.000000e+00
                              0 4.310429e-04
                                                     0
                                                              0 0.00000e+00
## CSI066 0.000000e+00
                              0 7.667389e-05
                                                     0
                                                              0 1.725162e-04
                           Otu00234 Otu00235
##
              Otu00233
                                                  Otu00236
                                                               Otu00237
## CSI002 2.179510e-04 5.448775e-05
                                            0 4.086581e-04 1.593767e-03
                                            0 0.000000e+00 4.474130e-04
## CSI013 1.917484e-04 2.237065e-04
  CSI023 4.082049e-05 0.000000e+00
                                            0 0.000000e+00 4.082049e-05
                                            0 0.000000e+00 3.884562e-03
## CSI034 1.894908e-04 2.463381e-04
  CSI045 1.959056e-04 0.000000e+00
                                            0 0.000000e+00 6.530186e-05
  CSI056 6.465644e-04 9.796430e-05
                                            0 0.000000e+00 2.880150e-03
  CSI066 1.456804e-03 2.875271e-04
                                            0 0.000000e+00 5.558857e-04
##
          Otu00238
                      Otu00239 Otu00240
                                             Otu00241
                                                          0tu00242
## CST002
                 0 0.00000000
                                       0 1.362194e-05 0.000000e+00
## CSI013
                 0 0.00000000
                                       0 0.000000e+00 0.000000e+00
##
  CSI023
                 0 0.000000000
                                       0 0.000000e+00 0.000000e+00
                                       0 0.000000e+00 0.000000e+00
## CST034
                 0 0.000000000
                                       0 0.000000e+00 3.265093e-05
## CSI045
                 0 0.000000000
  CSI056
                 0 0.00000000
                                       0 0.000000e+00 1.959286e-05
##
  CSI066
                 0 0.008894171
                                       0 1.916847e-05 7.667389e-05
              Otu00243
                           Otu00244
                                         Otu00245
                                                      Otu00246
                                                                    Otu00247
  CSI002 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI013 0.000000e+00 0.0001597904 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00 0.0033472803 2.041025e-05 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00 0.0003221344 0.000000e+00 1.894908e-05 0.000000e+00
   CSI045 6.530186e-05 0.0002612074 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 2.743000e-04
   CSI066 1.916847e-05 0.0006325596 0.000000e+00 0.000000e+00 3.642010e-03
              Otu00248 Otu00249 Otu00250
##
                                              Otu00251 Otu00252
                                                                     0 \pm 1100253
  CSI002 0.000000e+00
                              0
                                        0 5.448775e-05
                                                              0 8.990478e-04
                              0
## CSI013 6.391614e-05
                                        0 2.237065e-04
                                                              0 2.237065e-04
## CSI023 0.000000e+00
                              0
                                        0 0.00000e+00
                                                              0 1.836922e-04
## CSI034 1.839956e-02
                              0
                                                              0 6.821670e-04
                                        0 2.463381e-04
  CSI045 2.122310e-03
                                        0 3.265093e-05
                              0
                                                              0 9.795279e-05
  CSI056 3.134858e-04
                              0
                                        0 0.00000e+00
                                                              0 5.290072e-04
   CSI066 2.319385e-03
                                        0 6.133911e-04
                                                              0 2.875271e-04
##
          0t_{11}00254
                       0t1100255
                                     Ot:1100256
                                                  0t1100257
                                                               Ot:1100258
## CSI002
                 0.000000e+00 1.362194e-05 5.040117e-04 1.907071e-04
## CSI013
                 0 0.000000e+00 6.391614e-05 6.711195e-04 6.391614e-04
## CSI023
                 0 0.000000e+00 4.082049e-05 1.632820e-04 1.836922e-04
                 0 1.894908e-05 1.136945e-04 1.819112e-03 8.148106e-04
## CSI034
## CSI045
                 0 1.632546e-04 1.338688e-03 0.000000e+00 2.285565e-04
##
  CSI056
                 0 3.605086e-03 0.000000e+00 1.959286e-05 7.249358e-04
##
  CST066
                 0 5.558857e-04 8.779160e-03 0.000000e+00 3.833694e-05
          Otu00259 Otu00260 Otu00261
                                          Otu00262
                                                       Otu00263
                                                                     Otu00264
##
## CSI002
                 0
                          0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
                          0
## CSI013
                 0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI023
                 0
                          0
                                   0 0.000000e+00 2.041025e-05 0.000000e+00
## CSI034
                 0
                          0
                                   0 0.000000e+00 0.000000e+00 2.273890e-04
```

```
## CSI045
                 0
                          0
                                   0 0.000000e+00 0.000000e+00 6.530186e-04
                          0
## CSI056
                 0
                                   0 4.016536e-03 0.000000e+00 5.681930e-04
##
  CSI066
                 0
                                   0 2.549407e-03 0.000000e+00 4.983803e-04
##
              Otu00265
                           Otu00266
                                        Otu00267
                                                      Otu00268
                                                                   Ot:1100269
  CSI002 0.000000e+00 1.239596e-03 0.000000e+00 0.0002179510 9.712441e-03
  CSI013 0.000000e+00 6.391614e-05 3.195807e-05 0.0034514717 2.524688e-03
  CSI023 0.000000e+00 1.020512e-04 0.000000e+00 0.000000000 8.164098e-05
  CSI034 1.894908e-05 3.789817e-05 0.000000e+00 0.0004737271 9.474542e-05
   CSI045 6.530186e-05 9.795279e-05 0.000000e+00 0.0003265093 9.795279e-05
   CSI056 0.000000e+00 5.877858e-05 0.000000e+00 0.0022531789 5.877858e-05
   CSI066 0.000000e+00 1.916847e-04 0.000000e+00 0.0005558857 9.584236e-04
##
              Otu00270
                           Otu00271
                                        Otu00272 Otu00273
                                                               Otu00274
##
  CSI002 1.362194e-02 0.000000e+00 0.000000e+00
                                                         0 0.0033918623
  CSI013 6.263782e-03 0.000000e+00 0.000000e+00
                                                         0 0.0043143396
  CSI023 9.184611e-04 1.020512e-04 0.000000e+00
                                                         0 0.0007959996
   CSI034 3.638224e-03 0.000000e+00 0.000000e+00
                                                         0 0.0075606844
  CSI045 3.265093e-05 3.265093e-05 0.000000e+00
                                                         0 0.000000000
   CSI056 0.000000e+00 0.000000e+00 1.959286e-05
                                                         0 0.0002743000
  CSI066 2.683586e-04 7.667389e-05 0.000000e+00
##
                                                         0.0003066955
              0tu00275
                           Otu00276
                                        Otu00277
                                                      Ot:1100278
                                                                   Ot:1100279
  CSI002 2.724387e-05 0.0000000000 5.993652e-04 0.000000e+00 0.000000e+00
  CSI013 0.000000e+00 0.0000000000 5.752453e-04 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00 0.0000000000 2.857434e-04 0.000000e+00 2.041025e-05
  CSI034 1.894908e-04 0.0001894908 5.248896e-03 0.000000e+00 3.789817e-05
  CSI045 3.265093e-05 0.0000000000 9.795279e-05 3.265093e-05 0.000000e+00
  CSI056 0.000000e+00 0.0000000000 2.135622e-03 5.877858e-05 2.547072e-04
   CSI066 0.000000e+00 0.0000000000 5.750542e-05 0.000000e+00 1.399298e-03
              Otu00280
                           Otu00281
                                        Otu00282 Otu00283
                                                               Otu00284
  CSI002 0.0009807794 3.541704e-04 0.000000e+00
                                                         0 0.000000e+00
  CSI013 0.0006711195 5.113291e-04 0.000000e+00
                                                         0 0.00000e+00
  CSI023 0.0000000000 2.041025e-05 0.000000e+00
                                                         0 0.00000e+00
  CSI034 0.0006063707 2.463381e-04 0.000000e+00
                                                         0.0.000000e+00
   CSI045 0.0001306037 8.815751e-04 1.012179e-03
                                                         0 0.00000e+00
  CSI056 0.0006661573 5.662337e-03 1.959286e-05
                                                         0 0.00000e+00
   CSI066 0.0002683586 1.303456e-03 8.434128e-04
                                                         0 0.00000e+00
                                             Otu00288
                       Otu00286 Otu00287
##
          Ot:1100285
                                                           Ot:1100289
## CSI002
                 0 0.00000e+00
                                       0 0.0006538530 5.448775e-05
## CSI013
                 0 0.000000e+00
                                       0 0.0017257358 3.195807e-05
                                       0 0.0001428717 0.000000e+00
## CST023
                 0 0.00000e+00
## CSI034
                 0 0.00000e+00
                                       0 0.0004358289 1.705418e-04
  CSI045
                 0 0.00000e+00
                                       0 0.0003591602 2.285565e-04
                                       0 0.0007837144 2.311958e-03
##
  CSI056
                 0 1.959286e-05
##
  CSI066
                 0 0.00000e+00
                                       0 0.0003258640 0.000000e+00
##
                           Otu00291
                                        Otu00292 Otu00293
                                                               Otu00294
              Otu00290
  CSI002 0.000000e+00 1.089755e-03 2.220376e-03
                                                         0 0.000000000
  CSI013 0.000000e+00 2.077275e-03 8.820428e-03
                                                         0 0.000000000
  CSI023 2.041025e-05 0.000000e+00 8.164098e-04
                                                         0 0.000000000
   CSI034 0.000000e+00 8.129157e-03 2.217043e-03
                                                         0 0.000000000
  CSI045 0.000000e+00 3.265093e-05 0.000000e+00
                                                         0.0.0000000000
   CSI056 0.000000e+00 5.877858e-05 0.000000e+00
                                                         0 0.000000000
   CSI066 0.000000e+00 2.491901e-04 0.000000e+00
##
                                                         0 0.0267016811
##
          Otu00295 Otu00296
                               Otu00297
                                            Otu00298
                                                          Otu00299 Otu00300
## CSI002
                 0
                          0 0.003500838 3.677923e-04 0.000000e+00
                                                                          0
## CSI013
                 0
                          0 0.000000000 5.432872e-04 0.000000e+00
                                                                          0
```

```
## CSI023
                           0 0.000000000 6.123074e-05 0.000000e+00
                                                                            0
                 0
                           0 0.000000000 3.789817e-04 1.894908e-05
                                                                            0
##
  CSI034
  CSI045
                 0
                           0 0.000000000 4.244621e-04 0.000000e+00
                                                                            0
  CSI056
                 0
                            0.000000000 2.292365e-03 0.000000e+00
                                                                            0
##
##
   CST066
                 0
                           0 0.000000000 7.648220e-03 0.000000e+00
                                                                            0
              Otu00301
                            Otu00302
                                         Otu00303 Otu00304
##
                                                                Otu00305
   CSI002 7.492065e-04 1.362194e-05 4.086581e-04
                                                          0 0.000000000
  CSI013 4.154549e-04 0.000000e+00 1.086574e-03
                                                          0.0000000000
   CSI023 3.735075e-03 2.041025e-05 0.000000e+00
                                                          0 0.000000000
   CSI034 1.117996e-03 1.894908e-05 4.547780e-04
                                                          0 0.000000000
   CSI045 6.530186e-05 1.959056e-03 9.795279e-05
                                                          0 0.000000000
   CSI056 3.918572e-05 1.220635e-02 8.816787e-04
                                                          0 0.000000000
   CSI066 3.833694e-05 1.322625e-03 1.801836e-03
                                                          0 0.0003066955
          Otu00306 Otu00307 Otu00308
                                          Otu00309 Otu00310
##
                                                                  Otu00311
## CSI002
                 0
                           0
                                    0 6.810968e-05
                                                           0 2.588168e-04
##
  CSI013
                 0
                           0
                                    0 7.989518e-04
                                                           0 5.752453e-04
##
  CSI023
                 0
                           0
                                    0 0.000000e+00
                                                           0 0.00000e+00
   CSI034
                 0
                           0
                                    0 7.579634e-05
                                                           0 6.821670e-04
                           0
##
  CSI045
                 0
                                    0 6.203676e-04
                                                           0.000000e+00
##
  CSI056
                 0
                           0
                                    0 4.114501e-04
                                                           0 3.918572e-05
##
   CST066
                 0
                           0
                                    0 5.942226e-04
                                                           0 1.188445e-03
          Otu00312 Otu00313
                                 Otu00314 Otu00315
                                                        Otu00316
##
                                                                      Ot:1100317
## CSI002
                 0
                           0 0.00000e+00
                                                  0 0.000000e+00 0.000000e+00
##
  CSI013
                 0
                           0 0.000000e+00
                                                  0 0.000000e+00 0.000000e+00
## CSI023
                 0
                           0 0.00000e+00
                                                  0 0.000000e+00 0.000000e+00
  CSI034
                 0
                           0 0.000000e+00
                                                  0 0.000000e+00 0.000000e+00
                 0
                                                  0 0.000000e+00 0.000000e+00
##
   CSI045
                           0 3.265093e-04
##
   CSI056
                 0
                           0 1.782950e-03
                                                  0 0.000000e+00 3.918572e-04
                           0 2.683586e-04
                                                  0 3.833694e-05 0.000000e+00
##
   CSI066
                 0
##
              Otu00318
                            Otu00319
                                         Otu00320
                                                       Otu00321 Otu00322
##
   CSI002 4.086581e-05 4.141069e-03 6.810968e-03 1.770852e-04
                                                                        0
   CSI013 1.278323e-04 4.538046e-03 6.807069e-03 1.725736e-03
                                                                        0
   CSI023 0.000000e+00 3.306460e-03 7.347689e-04 1.020512e-04
                                                                        0
   CSI034 6.253198e-04 4.471984e-03 1.146420e-02 1.174843e-03
                                                                        0
   CSI045 3.918111e-04 0.000000e+00 6.530186e-05 2.612074e-04
                                                                        0
   CSI056 9.600502e-04 0.000000e+00 0.000000e+00 4.212465e-03
                                                                        0
##
   CSI066 1.897679e-03 1.533478e-04 9.584236e-05 1.341793e-04
##
              0tu00323
                            Otu00324 Otu00325 Otu00326
                                                            Otu00327
   CSI002 4.359020e-04 1.130621e-03
                                            0
                                                      0 1.362194e-05
   CSI013 7.669937e-04 1.054616e-03
                                            0
                                                      0 3.195807e-05
   CSI023 2.041025e-05 4.082049e-05
                                             0
                                                      0 0.00000e+00
   CSI034 8.148106e-04 4.168798e-04
                                             0
                                                      0 3.789817e-05
   CSI045 3.918111e-04 0.000000e+00
                                             0
                                                      0 6.856695e-04
                                             0
   CSI056 4.506358e-04 2.547072e-04
                                                      0 7.445287e-04
   CSI066 6.708965e-04 1.150108e-04
                                             0
                                                      0 2.051026e-03
##
              Otu00328 Otu00329
                                     Otu00330 Otu00331 Otu00332 Otu00333
   CSI002 0.000000e+00
                               0 2.778875e-03
                                                      0
                                                               0
                                                                         0
                                                               0
                                                                         0
   CSI013 0.000000e+00
                               0 5.752453e-04
                                                      0
   CSI023 0.000000e+00
                               0 2.041025e-04
                                                      0
                                                               0
                                                                         0
   CSI034 0.000000e+00
                               0 3.448733e-03
                                                      0
                                                               0
                                                                         0
                                                      0
                                                               0
                                                                         0
   CSI045 0.000000e+00
                               0 6.530186e-05
   CSI056 0.000000e+00
                               0 5.877858e-05
                                                      0
                                                               0
                                                                         0
##
  CSI066 0.000000e+00
                               0.0.000000e+00
                                                      0
                                                               0
                                                                         0
##
              Otu00334
                            Otu00335
                                         Otu00336 Otu00337 Otu00338 Otu00339
```

```
## CSI002 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
  CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                            0
  CSI023 0.000000e+00 0.000000e+00 2.041025e-05
                                                                   0
  CSI034 0.000000e+00 1.894908e-05 0.000000e+00
                                                         0
                                                                   0
                                                                            0
  CSI045 3.265093e-04 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
  CSI056 1.449872e-03 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                            0
  CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
                                                                            0
##
              Otu00340 Otu00341
                                    0t.1100342
                                                  Otu00343
                                                               Ot:1100344
## CSI002 0.000000e+00
                              0 1.144243e-03 0.000000e+00 4.767678e-04
  CSI013 0.000000e+00
                              0 4.793711e-04 0.000000e+00 8.628679e-04
## CSI023 0.000000e+00
                              0 8.368201e-04 0.000000e+00 1.428717e-04
                              0 2.652872e-04 0.000000e+00 8.148106e-04
## CSI034 0.000000e+00
  CSI045 3.265093e-05
                              0 3.265093e-05 0.000000e+00 0.000000e+00
## CSI056 0.000000e+00
                              0 1.959286e-05 0.000000e+00 7.837144e-05
                              0 3.833694e-05 1.916847e-05 3.833694e-05
  CSI066 0.000000e+00
##
              Otu00345 Otu00346 Otu00347
                                              Otu00348 Otu00349
                                                                    Otu00350
  CSI002 0.000000e+00
##
                              0
                                        0 8.173162e-04
                                                              0 0.00000e+00
  CSI013 1.597904e-04
                              0
                                        0 7.350356e-04
                                                              0 9.587421e-05
## CSI023 0.000000e+00
                              0
                                        0 2.041025e-05
                                                              0 1.065415e-02
## CSI034 0.000000e+00
                              0
                                        0 5.684725e-04
                                                              0 0.00000e+00
## CSI045 0.000000e+00
                              0
                                        0 6.530186e-05
                                                              0 0.000000e+00
## CSI056 0.000000e+00
                              0
                                        0 4.937401e-03
                                                              0 1.959286e-05
## CSI066 0.000000e+00
                              0
                                        0 1.341793e-04
                                                              0 0.00000e+00
                           Otu00352
              Otu00351
                                         Otu00353
                                                      Otu00354
                                                                   Ot:1100355
## CSI002 0.000000e+00 6.129872e-04 8.445601e-04 0.000000e+00 0.000000000
  CSI013 0.000000e+00 6.551405e-03 2.109233e-03 6.072033e-04 0.0000000000
  CSI023 0.000000e+00 1.020512e-04 6.123074e-04 0.000000e+00 0.0000000000
  CSI034 0.000000e+00 1.534876e-03 9.474542e-05 3.410835e-04 0.0000000000
  CSI045 0.000000e+00 3.265093e-05 0.000000e+00 0.000000e+00 0.0001306037
  CSI056 0.000000e+00 1.175572e-04 6.269715e-04 1.959286e-05 0.0001763357
##
  CSI066 1.916847e-05 3.833694e-05 1.341793e-04 0.000000e+00 0.0003642010
##
              0 \pm 1100356
                           Otu00357
                                         Otu00358
                                                      Otu00359
                                                                   Ot:1100360
  CSI002 0.0000000000 2.724387e-05 0.000000e+00 0.000000e+00 1.062511e-03
  CSI013 0.0000000000 3.515388e-04 0.000000e+00 0.000000e+00 1.150491e-03
  CSI023 0.0000000000 6.123074e-05 0.000000e+00 0.000000e+00 6.531279e-04
  CSI034 0.0000000000 3.789817e-04 0.000000e+00 0.000000e+00 2.444432e-03
  CSI045 0.0000000000 1.632546e-04 9.795279e-05 0.000000e+00 2.285565e-04
  CSI056 0.0000000000 7.014244e-03 2.743000e-04 2.155215e-04 7.837144e-05
  CSI066 0.0000000000 0.000000e+00 6.133911e-04 1.916847e-05 2.491901e-04
                                                     Otu00364 Otu00365
##
              Otu00361
                          Otu00362
                                        Otu00363
## CSI002 0.000000e+00 0.000000000 0.000000e+00 0.000000e+00
                                                                      0
## CSI013 6.391614e-05 0.000000000 9.587421e-05 3.195807e-05
                                                                      0
## CSI023 2.041025e-05 0.000000000 0.000000e+00 0.000000e+00
                                                                      0
## CSI034 0.000000e+00 0.000000000 3.789817e-05 0.000000e+00
                                                                      0
  CSI045 6.530186e-05 0.006889346 0.000000e+00 1.149313e-02
                                                                      0
  CSI056 5.094144e-03 0.000000000 0.000000e+00 5.094144e-03
                                                                      0
##
  CSI066 1.021680e-02 0.000000000 0.000000e+00 1.236366e-02
                                                                      0
##
              Otu00366
                           Otu00367
                                         Otu00368 Otu00369 Otu00370
## CSI002 6.810968e-04 0.000000e+00 6.402310e-04
                                                         0
                                                                   0
## CSI013 7.510147e-03 0.000000e+00 2.109233e-03
                                                         0
                                                                   0
## CSI023 7.143586e-04 0.000000e+00 5.510766e-04
                                                                   0
                                                         0
## CSI034 1.155894e-03 0.000000e+00 4.301442e-03
                                                         0
                                                                   0
## CSI045 3.265093e-05 4.244621e-03 3.265093e-05
                                                         0
                                                                   0
## CSI056 3.526715e-04 1.969082e-02 1.959286e-05
                                                                   0
```

```
## CSI066 1.533478e-04 0.000000e+00 2.108532e-04
##
              Ot:1100371
                            Ot:1100372
                                         Ot:1100373
                                                       Ot:1100374
                                                                    Ot:1100375
  CSI002 0.000000e+00 0.0001225974 5.448775e-05 0.000000e+00 1.362194e-05
  CSI013 0.000000e+00 0.0069349014 9.267841e-04 0.000000e+00 0.000000e+00
  CSI023 2.041025e-05 0.0019797939 2.041025e-05 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00 0.0051730999 1.610672e-03 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
  CSI056 5.681930e-04 0.0001959286 1.371500e-04 1.959286e-05 0.000000e+00
  CSI066 0.000000e+00 0.0000000000 3.852863e-03 0.000000e+00 0.000000e+00
##
          Otu00376
                       Otu00377
                                     Otu00378 Otu00379
                                                            Otu00380
## CSI002
                 0 1.362194e-05 0.0002043291
                                                      0 0.00000e+00
## CSI013
                 0 0.000000e+00 0.0002556646
                                                      0 0.000000e+00
  CSI023
                 0 2.041025e-04 0.0000000000
                                                      0 0.000000e+00
                                                      0 0.00000e+00
  CSI034
                 0 0.000000e+00 0.0004358289
                 0 6.562837e-03 0.0002612074
  CST045
                                                      0 3.265093e-05
  CSI056
                 0 1.007073e-02 0.0004702286
                                                      0 0.00000e+00
##
##
  CSI066
                 0 2.248462e-02 0.0007667389
                                                      0 0.00000e+00
              Otu00381 Otu00382 Otu00383
                                              Otu00384 Otu00385 Otu00386
##
## CSI002 0.000000e+00
                               0
                                        0 8.445601e-04
                                                               0
                                                                         0
  CSI013 0.000000e+00
                               0
                                        0 1.821610e-03
                                                               0
                                                                         0
  CSI023 2.041025e-05
                               0
                                        0 1.224615e-04
                                                               0
                                                                         0
                                                               0
  CSI034 0.000000e+00
                               0
                                        0 1.743316e-03
                                                                         0
  CSI045 0.000000e+00
                                                               0
                               0
                                        0 1.012179e-03
                                                                         0
                                                               0
  CSI056 0.000000e+00
                               0
                                        0 3.722643e-04
                                                                         0
                                                               0
  CSI066 0.000000e+00
                                        0 3.507830e-03
                                                                         0
##
          Otu00387 Otu00388
                                 Otu00389 Otu00390 Otu00391
                                                                 Otu00392
## CSI002
                           0 0.00000e+00
                                                  0
                                                           0 2.084156e-03
                 0
##
  CSI013
                 0
                           0 0.00000e+00
                                                  0
                                                           0 3.898885e-03
                 0
                                                  0
## CSI023
                           0 0.00000e+00
                                                           0 3.265639e-04
  CSI034
                 0
                           0 0.000000e+00
                                                  0
                                                           0 1.042200e-03
##
  CSI045
                 0
                           0 0.000000e+00
                                                  0
                                                           0 9.795279e-05
##
  CSI056
                 0
                           0 1.959286e-05
                                                  0
                                                           0 3.722643e-04
##
   CSI066
                 0
                           0 0.00000e+00
                                                  0
                                                           0 4.600433e-04
              Otu00393 Otu00394 Otu00395
##
                                              Otu00396
                                                            Otu00397
  CSI002 0.000000e+00
                               0
                                        0 2.724387e-05 0.000000e+00
                                        0 2.109233e-02 0.000000e+00
                               0
  CSI013 0.000000e+00
   CSI023 0.000000e+00
                               0
                                        0 8.164098e-05 0.000000e+00
  CSI034 0.000000e+00
                               0
                                        0 1.894908e-05 0.000000e+00
  CSI045 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
                               0
  CST056 0.000000e+00
                               0
                                        0 0.000000e+00 1.959286e-05
   CSI066 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                            Otu00399
                                         Otu00400 Otu00401
##
              Ot:1100398
                                                                0t_{11}00402
  CSI002 1.089755e-04 1.362194e-05 0.000000e+00
                                                          0 0.0006266091
  CSI013 7.669937e-04 0.000000e+00 0.000000e+00
                                                          0 0.0009587421
   CSI023 4.082049e-05 0.000000e+00 0.000000e+00
                                                          0 0.0001224615
   CSI034 3.221344e-04 0.000000e+00 0.000000e+00
                                                          0 0.0017622648
   CSI045 8.162732e-04 0.000000e+00 2.840631e-03
                                                          0 0.0003265093
   CSI056 1.959286e-05 0.000000e+00 2.703815e-03
                                                          0 0.0001371500
   CSI066 0.000000e+00 0.000000e+00 2.300217e-03
                                                          0.0.0002683586
##
          Otu00403 Otu00404 Otu00405 Otu00406
                                                    Otu00407
                                                                Otu00408
## CSI002
                 0
                           0
                                    0
                                             0 2.588168e-04 0.000000000
                           0
## CSI013
                 0
                                    0
                                             0 3.195807e-05 0.000000000
## CSI023
                 0
                           0
                                    0
                                             0 0.000000e+00 0.000000000
## CSI034
                 0
                           0
                                    0
                                             0 1.894908e-05 0.000000000
```

```
## CSI045
                 0
                          0
                                    0
                                             0 0.000000e+00 0.000000000
                          0
                                             0 0.000000e+00 0.000000000
## CST056
                 0
                                    0
                                             0 0.000000e+00 0.001897679
##
  CSI066
                 0
                          0
                                    0
##
              Otu00409
                           Otu00410
                                        Otu00411 Otu00412
                                                               Ot:1100413
  CSI002 6.810968e-04 0.000000e+00 1.198730e-03
                                                         0 1.225974e-04
  CSI013 1.214407e-03 3.195807e-05 1.374197e-03
                                                         0 6.391614e-05
  CSI023 8.164098e-05 0.000000e+00 4.082049e-05
                                                         0 2.041025e-05
  CSI034 2.861312e-03 1.894908e-05 1.136945e-03
                                                         0 4.547780e-04
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0 9.795279e-05
   CSI056 0.000000e+00 5.877858e-05 3.918572e-04
                                                         0 1.214757e-03
   CSI066 0.000000e+00 0.000000e+00 2.491901e-04
                                                         0 4.408748e-04
                                                  Otu00417
##
              Otu00414 Otu00415
                                    Otu00416
                                                               Otu00418
##
  CSI002 3.405484e-04
                              0 0.000000e+00 0.0000000000 2.302107e-03
  CSI013 6.583363e-03
                              0 0.000000e+00 0.000000000 3.515388e-04
  CSI023 2.449230e-04
                              0 0.000000e+00 0.0000000000 9.388713e-04
  CSI034 1.800163e-03
                              0 0.000000e+00 0.0000000000 3.031853e-04
  CSI045 0.000000e+00
                              0 3.852810e-03 0.0025467725 0.000000e+00
   CSI056 1.959286e-05
                              0 5.877858e-05 0.0005877858 0.000000e+00
                              0 2.491901e-04 0.0026644176 0.000000e+00
##
  CST066 3.833694e-05
          Otu00419
                       Otu00420
                                    Otu00421
                                                  Otu00422
                                                               Ot:1100423
##
  CSI002
                 0 8.173162e-05 5.312555e-04 0.000000e+00 0.000000e+00
## CSI013
                 0 3.195807e-05 2.205107e-03 0.000000e+00 0.000000e+00
## CSI023
                 0 1.632820e-04 5.306664e-04 0.000000e+00 0.000000e+00
                 0 3.410835e-04 3.467682e-03 3.789817e-05 0.000000e+00
## CSI034
##
  CST045
                 0 4.571130e-04 2.938584e-04 1.959056e-04 0.000000e+00
  CSI056
                 0 1.959286e-05 5.877858e-04 7.837144e-05 0.000000e+00
                 0 2.894439e-03 1.150108e-04 1.341793e-04 1.916847e-05
##
  CSI066
              Otu00424 Otu00425 Otu00426
                                              Otu00427 Otu00428
                                                                     Otu00429
  CSI002 0.0002451949
                              0
                                        0 0.00000e+00
                                                              0 1.634632e-04
  CSI013 0.0003195807
                              0
                                        0 0.00000e+00
                                                              0 2.556646e-04
  CSI023 0.0000000000
                              0
                                        0 0.00000e+00
                                                              0 2.041025e-05
  CSI034 0.0001326436
                              0
                                        0 1.894908e-05
                                                              0 5.684725e-04
   CSI045 0.0001632546
                              0
                                        0 0.00000e+00
                                                              0 9.795279e-05
  CSI056 0.0004506358
                              0
                                        0 1.567429e-04
                                                              0 6.465644e-04
   CSI066 0.0004217064
                              0
                                        0 0.00000e+00
                                                               0 8.242443e-04
##
                           Otu00431 Otu00432
##
              Otu00430
                                                  Ot:1100433
                                                               Ot:1100434
## CSI002 1.362194e-04 0.000000e+00
                                            0 0.000000e+00 1.634632e-04
## CSI013 1.470071e-03 0.000000e+00
                                            0 0.000000e+00 1.597904e-04
  CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 4.082049e-05
                                            0 0.000000e+00 1.515927e-04
  CSI034 2.273890e-03 1.023251e-03
  CSI045 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 3.918111e-04
  CSI056 1.371500e-04 0.000000e+00
                                            0 1.959286e-05 1.763357e-04
   CSI066 0.000000e+00 2.702755e-03
                                            0 0.000000e+00 2.108532e-04
##
              Otu00435
                           Otu00436
                                        Otu00437 Otu00438
                                                               Otu00439
  CSI002 2.274863e-03 0.000000e+00 3.119424e-03
                                                         0 1.498413e-04
  CSI013 6.455530e-03 0.000000e+00 4.090633e-03
                                                         0 9.587421e-05
   CSI023 8.164098e-05 0.000000e+00 7.959996e-04
                                                         0 0.00000e+00
   CSI034 4.282493e-03 0.000000e+00 4.604627e-03
                                                         0 1.705418e-04
  CSI045 3.265093e-05 0.000000e+00 0.000000e+00
                                                         0.6.530186e-05
  CSI056 4.506358e-04 6.857501e-04 3.526715e-04
                                                         0 0.00000e+00
  CSI066 2.491901e-04 5.750542e-05 0.000000e+00
##
                                                         0.0.000000e+00
##
              Otu00440 Otu00441 Otu00442
                                              Otu00443
                                                           Otu00444
## CSI002 6.947188e-04
                              0
                                        0 0.000000e+00 5.176336e-04
## CSI013 6.072033e-04
                              0
                                        0 0.000000e+00 1.054616e-03
```

```
## CSI023 2.041025e-05
                               0
                                         0 0.000000e+00 1.836922e-04
                               0
                                         0 0.000000e+00 1.951756e-03
  CSI034 8.716579e-04
   CSI045 3.918111e-04
                               0
                                         0 0.000000e+00 3.265093e-05
   CSI056 5.486001e-03
                               0
                                         0 0.000000e+00 1.469465e-03
##
   CSI066 1.878510e-03
                               0
                                         0 1.916847e-05 1.533478e-04
##
              Otu00445
                            Otu00446 Otu00447
                                                    Otu00448 Otu00449 Otu00450
   CSI002 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                     0
                                                                              0
  CSI013 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                     0
                                                                              0
   CSI023 0.000000e+00 0.0000000000
                                             0 0.00000e+00
                                                                     0
                                                                              O
                                                                     0
   CSI034 0.000000e+00 0.0000000000
                                             0 0.00000e+00
                                                                              0
   CSI045 0.000000e+00 0.0006203676
                                             0 0.00000e+00
                                                                     0
                                                                              0
   CSI056 1.959286e-05 0.0011951645
                                                                     0
                                                                              0
                                             0 0.00000e+00
   CSI066 0.000000e+00 0.0011692768
                                             0 1.916847e-05
                                                                     0
                                                                              0
          Otu00451 Otu00452 Otu00453
##
                                           Otu00454
                                                         Otu00455
                                                                       Otu00456
## CSI002
                           0
                                     0 3.405484e-04 2.724387e-05 1.362194e-05
                  0
##
  CSI013
                  0
                           0
                                     0 7.350356e-04 9.587421e-05 3.195807e-05
                                     0 5.510766e-04 0.000000e+00 0.000000e+00
##
  CSI023
                  0
                           0
   CSI034
                  0
                           0
                                     0 4.926762e-04 9.474542e-05 1.894908e-05
  CSI045
                           0
                                     0 0.000000e+00 1.044830e-03 1.273386e-03
##
                  0
##
  CSI056
                  0
                           0
                                     0 0.000000e+00 1.567429e-04 1.959286e-05
##
   CST066
                  0
                           0
                                     0 3.833694e-05 1.150108e-03 7.820736e-03
          Otu00457 Otu00458
                                  Otu00459 Otu00460
                                                         Otu00461
##
## CSI002
                                                   0 0.000000e+00 4.086581e-04
                  0
                           0 0.00000e+00
  CSI013
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00 9.587421e-05
                           0 0.000000e+00
## CSI023
                  0
                                                   0 2.041025e-05 0.000000e+00
  CSI034
                  0
                           0 0.000000e+00
                                                   0 3.789817e-05 8.337597e-04
  CSI045
                  0
                                                   0 0.000000e+00 7.509714e-04
##
                           0
                             3.265093e-05
##
   CSI056
                  0
                           0
                             0.000000e+00
                                                   0 0.000000e+00 4.506358e-04
   CSI066
                  0
                           0 5.750542e-05
                                                   0 1.916847e-05 2.338554e-03
##
##
          Otu00463 Otu00464
                             Otu00465
                                           Otu00466
                                                         Otu00467 Otu00468
## CSI002
                  0
                           0
                                     0 0.000000e+00 9.262917e-04
                                                                          0
##
   CSI013
                  0
                           0
                                     0 0.000000e+00 1.278323e-04
                                                                          0
   CSI023
                  0
                           0
                                     0 0.000000e+00 1.020512e-04
                                                                          0
                  0
                           0
                                     0 0.000000e+00 1.459079e-03
                                                                          0
##
  CSI034
   CSI045
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
  CSI056
                  0
                           0
                                     0 1.959286e-05 0.000000e+00
                                                                          0
##
##
   CSI066
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
          0 \pm 1100469
                        Otu00470
                                      0 \pm 1100471
                                                    Otu00472 Otu00473
                  0 0.000000e+00 3.541704e-04 0.000000e+00
## CSI002
                                                                     0
  CSI013
                  0 9.587421e-05 1.278323e-04 0.000000e+00
                                                                     0
##
                  0 0.000000e+00 4.082049e-05 0.000000e+00
                                                                     0
   CSI023
   CSI034
                  0 0.000000e+00 1.894908e-04 0.000000e+00
                                                                     0
##
                  0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI045
                                                                     0
                                                                     0
##
   CSI056
                  0 1.786869e-02 2.547072e-04 0.000000e+00
                                                                     0
##
   CSI066
                  0 0.000000e+00 0.000000e+00 1.916847e-05
                            Otu00475 Otu00476 Otu00477 Otu00478 Otu00479
##
              Otu00474
   CSI002 3.269265e-04 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI013 3.515388e-04 6.391614e-05
   CSI023 2.041025e-05 9.592816e-04
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI034 4.737271e-04 5.684725e-05
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI045 1.959056e-04 8.489242e-04
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI056 1.959286e-05 1.449872e-03
                                             0
                                                       0
                                                                 0
                                                                          0
##
  CSI066 2.012690e-03 1.725162e-04
                                             0
                                                       0
                                                                 0
                                                                          0
##
              Otu00480
                            Otu00481 Otu00482
                                                    Otu00483
                                                                  Otu00484
```

```
## CSI002 1.362194e-04 0.000000e+00
                                          0 3.814142e-04 1.362194e-05
  CSI013 0.000000e+00 2.556646e-04
                                          0 1.597904e-04 0.000000e+00
                                          0 4.082049e-05 0.000000e+00
  CSI023 6.123074e-05 4.898459e-04
  CSI034 9.474542e-05 2.160196e-03
                                          0 8.337597e-04 0.000000e+00
  CSI045 7.836223e-04 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00 0.000000e+00
                                          0 5.094144e-04 0.000000e+00
  CSI066 5.942226e-03 1.341793e-04
                                          0 4.408748e-04 0.000000e+00
##
             Ot:1100485
                          Ot:1100486
                                       Otu00487
                                                   Otu00488 Otu00489
  0
  0
  0
  CSI034 3.789817e-05 0.000000e+00 0.000000e+00 0.0000000000
                                                                   0
  CSI045 3.265093e-04 0.000000e+00 0.000000e+00 0.0007836223
                                                                   0
                                                                   0
  CSI056 5.877858e-05 6.994651e-03 0.000000e+00 0.0028997433
  CSI066 1.245951e-03 0.000000e+00 0.000000e+00 0.0033353141
                                                                   0
##
             Otu00490
                          Otu00491 Otu00492 Otu00493 Otu00494
                                                                 Otu00495
  CSI002 0.000000e+00 0.000000e+00
                                          0
                                                  0
##
                                                           0 0.00000e+00
  CSI013 0.000000e+00 0.000000e+00
                                          0
                                                   0
                                                           0 0.00000e+00
  CSI023 0.000000e+00 0.000000e+00
                                          0
                                                  0
                                                           0 0.00000e+00
  CSI034 0.000000e+00 1.894908e-05
                                          0
                                                  0
                                                           0 0.00000e+00
  CSI045 0.000000e+00 0.000000e+00
                                          0
                                                  Λ
                                                           0 0.000000e+00
  CSI056 1.959286e-05 0.000000e+00
                                          0
                                                  0
                                                           0 1.959286e-05
  CSI066 0.000000e+00 0.000000e+00
                                          0
##
                                                  0
                                                           0 0.00000e+00
##
         Otu00496
                      Otu00497 Otu00498 Otu00499 Otu00500
                                                            Otu00501
## CSI002
                0 4.086581e-05
                                      0
                                               0
                                                       0 0.00000000
  CSI013
                0 3.195807e-05
                                      0
                                               0
                                                       0 0.000000000
## CSI023
                0 0.000000e+00
                                      0
                                               0
                                                       0 0.000000000
##
  CSI034
                0 1.326436e-04
                                      0
                                               0
                                                       0 0.000000000
                0 0.000000e+00
                                      0
                                               0
##
  CSI045
                                                        0 0.000000000
  CSI056
                0 1.959286e-05
                                      0
                                               0
                                                        0 0.002194400
##
  CSI066
                0 0.00000e+00
                                      0
                                               0
                                                        0 0.00000000
##
         Otu00502 Otu00503
                               Otu00504 Otu00505
                                                     Otu00506
                                                                 0 \pm 1100507
## CSI002
                0
                         0 2.451949e-04
                                               0 3.133045e-04 0.000000e+00
  CSI013
                                               0 1.054616e-03 0.000000e+00
##
                0
                         0 1.533987e-03
  CSI023
                0
                           1.020512e-04
                                                1.020512e-04 2.041025e-05
                         0
                                                1.970705e-03 0.000000e+00
## CSI034
                0
                         0 2.425483e-03
##
  CSI045
                0
                         0 9.795279e-05
                                               0 9.795279e-05 1.273386e-03
## CSI056
                0
                         0 1.939693e-03
                                                1.880915e-03 1.077607e-03
                0
                           3.066955e-04
                                                7.284019e-04 5.750542e-05
##
  CST066
                         0
         Otu00508 Otu00509
                               Otu00510 Otu00511 Otu00512
##
                                                             Ot:1100513
## CSI002
                0
                         0 1.089755e-04
                                               0
                                                       0 2.315729e-04
## CSI013
                0
                         0 2.876226e-04
                                               0
                                                       0 7.350356e-04
  CSI023
                0
                         0 0.000000e+00
                                               0
                                                       0 0.00000e+00
                                               0
                0
                         0 5.684725e-05
                                                        0 1.705418e-04
##
  CSI034
  CSI045
                0
                         0 3.787508e-03
                                               0
                                                       0 0.00000e+00
## CSI056
                                               0
                0
                         0 8.620859e-04
                                                        0 0.00000e+00
##
  CSI066
                0
                         0 3.335314e-03
                                               0
                                                       0 0.00000e+00
##
             Otu00514
                          Otu00515 Otu00516 Otu00517
                                                         Otu00518
  CSI002 0.000000e+00 2.996826e-04
                                          0
                                                  0 0.000000e+00
  CSI013 0.000000e+00 3.195807e-04
                                          0
                                                  0 0.00000e+00
  CSI023 0.000000e+00 2.041025e-05
                                          0
                                                  0 0.00000e+00
  CSI034 0.000000e+00 1.269589e-03
                                          0
                                                  0 0.00000e+00
## CSI045 0.000000e+00 1.959056e-04
                                          0
                                                  0 0.000000e+00
## CSI056 0.000000e+00 1.959286e-04
                                          0
                                                  0 0.00000e+00
```

```
## CSI066 0.000000e+00 1.533478e-04
                                            0
                                                     0 0.00000e+00
                                                  Otu00522 Otu00523
##
              Ot:1100519
                           Oti100520 Oti100521
  CSI002 0.0000000000 0.000000e+00
                                            0 9.944014e-04
                                                                  0
  CSI013 0.0007669937 0.000000e+00
                                            0 6.072033e-04
                                                                   0
  CSI023 0.0000000000 0.000000e+00
                                            0 8.164098e-05
                                                                   0
  CSI034 0.0000000000 1.894908e-05
                                            0 4.926762e-04
                                                                   0
  CSI045 0.0001632546 9.795279e-05
                                            0 9.795279e-05
                                                                   0
## CSI056 0.0003722643 1.910304e-02
                                            0 5.094144e-04
                                                                   0
  CSI066 0.0002300217 2.491901e-04
                                            0 3.833694e-04
                                                                   0
##
              Otu00524
                           Otu00525 Otu00526
                                                  Otu00527
                                                                Otu00528
  CSI002 4.604215e-03 3.582569e-03
                                            0 0.000000e+00 1.048889e-03
  CSI013 2.556646e-03 4.985459e-03
                                            0 3.195807e-05 2.940143e-03
  CSI023 5.306664e-04 5.306664e-04
                                            0 0.000000e+00 8.164098e-05
                                            0 0.000000e+00 3.107650e-03
  CSI034 3.278191e-03 7.011161e-04
  CSI045 3.265093e-05 0.000000e+00
                                            0 0.000000e+00 0.000000e+00
   CSI056 1.959286e-05 0.000000e+00
                                            0 0.000000e+00 4.114501e-04
  CSI066 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 7.092335e-04
##
              Otu00529
                           Otu00530
                                        Otu00531
                                                      Otu00532
                                                                    Otu00533
  CSI002 4.086581e-05 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI013 1.597904e-04 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 1.705418e-04 1.894908e-05 0.000000e+00 0.000000e+00 0.000000e+00
  CSI045 3.265093e-05 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 3.722643e-04 0.000000e+00 1.959286e-05 2.174808e-03 0.000000e+00
  CSI066 0.000000e+00 0.000000e+00 0.000000e+00 1.916847e-05 0.000000e+00
              Otu00534
                           Otu00535
                                         Otu00536
                                                      Otu00537
  CSI002 5.176336e-04 0.000000e+00 5.721213e-04 9.535356e-05 0.000000e+00
##
   CSI013 6.391614e-05 0.000000e+00 4.154549e-04 5.049375e-03 0.000000e+00
   CSI023 8.164098e-05 0.000000e+00 2.041025e-05 0.000000e+00 0.000000e+00
  CSI034 1.610672e-03 0.000000e+00 1.364334e-03 5.684725e-04 0.000000e+00
   CSI045 0.000000e+00 1.306037e-04 1.959056e-04 1.306037e-04 6.530186e-05
   CSI056 0.000000e+00 1.175572e-04 3.722643e-04 5.877858e-05 5.877858e-05
   CSI066 0.000000e+00 0.000000e+00 3.066955e-04 3.833694e-05 0.000000e+00
              Otu00539 Otu00540
                                    Otu00541 Otu00542 Otu00543 Otu00544
##
  CSI002 0.000000e+00
                              0 0.0001634632
                                                     0
                                                              0
                                                                        0
                                                     0
                                                              0
                                                                        0
  CSI013 6.391614e-05
                              0 0.000000000
  CSI023 0.000000e+00
                              0 0.0008164098
                                                     0
                                                              0
                                                                        0
## CSI034 0.000000e+00
                                                              0
                                                                        0
                              0 0.000000000
                                                     Ω
  CSI045 0.000000e+00
                                                     0
                                                              0
                                                                        0
                              0 0.0016651974
                                                     Λ
                                                              0
                                                                        0
  CSI056 0.000000e+00
                              0 0.0017241717
                                                              0
  CSI066 0.000000e+00
                              0 0.0002683586
                                                     0
                                                                        0
              Otu00545 Otu00546 Otu00547
                                              Otu00548 Otu00549
##
                                                                     0t_{11}00550
  CSI002 2.315729e-04
                              0
                                        0 1.021645e-03
                                                              0 1.362194e-05
                              0
  CSI013 1.533987e-03
                                        0 8.309098e-04
                                                              0 0.00000e+00
  CSI023 2.041025e-05
                              0
                                        0 1.836922e-04
                                                              0 0.00000e+00
                              0
## CSI034 1.610672e-03
                                        0 2.785515e-03
                                                              0 0.00000e+00
  CSI045 1.632546e-04
                              0
                                        0 0.00000e+00
                                                              0 0.00000e+00
  CSI056 9.796430e-05
                              0
                                        0 1.959286e-05
                                                              0 0.000000e+00
##
  CSI066 2.875271e-04
                              0
                                        0 1.916847e-05
                                                              0 0.000000e+00
          Otu00551
                       Otu00552
                                    Otu00553
                                                  Otu00554
                                                               Otu00555
##
## CSI002
                 0 0.000000e+00 0.000000e+00 5.448775e-05 0.000000e+00
## CSI013
                 0 0.000000e+00 0.000000e+00 9.587421e-05 0.000000e+00
## CSI023
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI034
                 0.000000e+00 0.000000e+00 1.894908e-05 1.894908e-05
```

```
## CSI045
                 0 0.000000e+00 9.795279e-05 0.000000e+00 0.000000e+00
                 0 0.000000e+00 1.594859e-02 0.000000e+00 0.000000e+00
## CST056
## CSI066
                 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
              Otu00556
                           Otu00557
                                        Otu00558 Otu00559 Otu00560
## CSI002 2.424705e-03 0.000000e+00 2.397461e-03
## CSI013 1.597904e-03 0.000000e+00 0.000000e+00
                                                                  0
                                                         \cap
  CSI023 8.164098e-05 0.000000e+00 6.939484e-04
                                                                  0
## CSI034 4.244595e-03 0.000000e+00 0.000000e+00
                                                         0
                                                                  0
   CSI045 2.938584e-04 0.000000e+00 3.591602e-04
                                                         Ω
                                                                  0
                                                         Λ
                                                                  Λ
   CSI056 2.155215e-04 5.877858e-05 0.000000e+00
   CSI066 5.558857e-04 9.584236e-05 0.000000e+00
              Otu00561 Otu00562 Otu00563
##
                                              Otu00564 Otu00565 Otu00566
##
  CSI002 9.807794e-04
                              0
                                       0 0.000000e+00
                                                              0
                                                                        0
                              0
                                                              0
## CSI013 5.432872e-04
                                        0 0.00000e+00
                                                                        0
## CSI023 0.000000e+00
                                                              0
                                                                        0
                              0
                                       0 0.00000e+00
  CSI034 3.979308e-04
                              0
                                       0 1.894908e-05
                                                              0
                                                                        0
                                                              0
  CSI045 0.000000e+00
                              0
                                       0 0.00000e+00
                                                                        0
  CSI056 3.918572e-05
                                        0 0.00000e+00
                                                              0
                                                              0
##
  CSI066 9.584236e-05
                              0
                                       0.000000e+00
                                                                        0
              Otu00567 Otu00568 Otu00569
                                              Otu00570
                                                           Otu00571 Otu00572
## CSI002 1.362194e-05
                              0
                                       0 0.000000000 0.000000e+00
                                                                            0
## CSI013 8.724553e-03
                                        0 0.000000000 0.000000e+00
## CSI023 6.123074e-05
                                       0 0.000000000 0.000000e+00
                              0
                                                                            0
                                       0 0.000000000 0.000000e+00
## CSI034 2.463381e-04
                              0
## CSI045 3.265093e-05
                              0
                                       0 0.0002938584 0.000000e+00
                                                                            0
  CSI056 0.000000e+00
                                        0 0.0004310429 1.959286e-05
                                                                            0
  CSI066 5.750542e-05
                              0
                                       0 0.0005367172 0.000000e+00
                                                                            0
              Otu00573
                           Otu00574 Otu00575
                                                  Otu00576 Otu00577 Otu00578
## CSI002 2.724387e-04 4.086581e-05
                                            0 0.00000e+00
                                                                  0
                                                                            0
  CSI013 5.113291e-04 1.917484e-04
                                            0 1.278323e-04
                                                                  0
                                                                            0
## CSI023 2.041025e-05 6.123074e-05
                                            0 2.041025e-05
                                                                  0
                                                                            0
  CSI034 3.410835e-04 7.579634e-05
                                            0 2.084399e-04
                                                                  0
                                                                            0
  CSI045 9.795279e-05 3.265093e-05
                                            0 3.918111e-04
                                                                  0
                                                                            0
  CSI056 4.310429e-04 2.096436e-03
                                            0 2.155215e-04
                                                                  0
                                                                            0
  CSI066 6.517280e-04 8.817497e-04
                                            0 9.584236e-05
                                                                  0
              Otu00579 Otu00580
                                    Otu00581 Otu00582
##
                                                           Ot:1100583
## CSI002 0.0001225974
                              0 0.000000e+00
                                                     0 9.535356e-05
## CSI013 0.0008309098
                              0 0.000000e+00
                                                     0 6.391614e-05
## CSI023 0.0000000000
                              0 0.00000e+00
                                                     0 6.123074e-05
## CSI034 0.0003600326
                              0 0.00000e+00
                                                     0 1.705418e-04
  CSI045 0.0000000000
                              0 5.877167e-04
                                                     0 0.00000e+00
## CSI056 0.0000000000
                              0 9.012716e-04
                                                     0 1.959286e-04
  CSI066 0.0000000000
                              0 1.725162e-04
                                                     0 1.533478e-04
                                    Otu00586 Otu00587
##
              Otu00584 Otu00585
                                                           Otu00588
## CSI002 0.000000e+00
                              0 0.0020296686
                                                     0 1.362194e-05
## CSI013 9.587421e-05
                              0 0.0019814004
                                                     0 0.00000e+00
  CSI023 4.082049e-05
                              0 0.0003877947
                                                     0 0.00000e+00
## CSI034 1.894908e-04
                              0 0.0010800978
                                                     0 0.00000e+00
## CSI045 0.000000e+00
                              0.000000000
                                                     0 0.000000e+00
## CSI056 1.959286e-05
                              0 0.000000000
                                                     0 0.00000e+00
                              0 0.0002108532
                                                     0 0.000000e+00
## CSI066 0.000000e+00
              Otu00589 Otu00590
                                    Otu00591
                                                  Otu00592
                                                               Otu00593
## CSI002 2.724387e-05
                              0 2.724387e-05 9.535356e-05 0.000000e+00
## CSI013 1.917484e-04
                              0 0.000000e+00 1.917484e-04 1.278323e-04
```

```
## CSI023 0.000000e+00
                              0 0.000000e+00 2.041025e-05 0.000000e+00
  CSI034 9.474542e-05
                              0 5.684725e-05 3.221344e-04 1.894908e-05
                              0 3.265093e-05 1.306037e-04 2.285565e-04
  CSI045 1.959056e-04
  CSI056 1.567429e-04
                              0 7.837144e-05 3.330786e-04 3.918572e-05
##
   CSI066 7.092335e-04
                              0 0.000000e+00 3.833694e-04 5.942226e-04
              Otu00594
                                         Otu00596 Otu00597
##
                           Otu00595
                                                                Ot:1100598
  CSI002 1.362194e-05 0.0000000000 7.764504e-04
                                                         0 8.173162e-05
## CSI013 0.000000e+00 0.000000000 4.570004e-03
                                                         0 3.195807e-05
  CSI023 0.000000e+00 0.0003877947 1.020512e-04
                                                         0 0.00000e+00
  CSI034 0.000000e+00 0.0004926762 1.269589e-03
                                                         0 1.515927e-04
   CSI045 0.000000e+00 0.0000000000 1.306037e-04
                                                         0 0.00000e+00
   CSI056 0.000000e+00 0.000000000 3.918572e-05
                                                         0 9.796430e-05
   CSI066 0.000000e+00 0.0000000000 5.175487e-04
                                                         0 1.916847e-05
              Otu00599
##
                           Otu00600
                                         Otu00601 Otu00602 Otu00603 Otu00604
  CSI002 2.724387e-05 0.0011987304 0.0013349498
                                                         0
                                                                   0
                                                                            0
   CSI013 0.000000e+00 0.0009907002 0.0000000000
                                                         0
                                                                   0
                                                                            0
  CSI023 0.000000e+00 0.0001020512 0.0007143586
                                                                   0
                                                         0
                                                                            0
   CSI034 1.894908e-05 0.0022549410 0.0000000000
                                                         0
                                                                   0
                                                                            0
  CSI045 0.000000e+00 0.0001306037 0.0000000000
                                                         0
                                                                   0
                                                                            0
  CSI056 0.000000e+00 0.0001567429 0.0000000000
                                                         0
                                                                   0
  CSI066 0.000000e+00 0.0001341793 0.0000000000
##
                                                         0
                                                                   0
                                                                            0
              Otu00605
                                         Otu00607 Otu00608
##
                           Ot:1100606
                                                                Ot:1100609
## CSI002 0.000000e+00 8.581820e-04 6.674749e-04
                                                         0 2.996826e-04
  CSI013 0.000000e+00 5.017417e-03 4.474130e-04
                                                         0 0.00000e+00
  CSI023 2.041025e-05 0.000000e+00 4.082049e-05
                                                         0 1.224615e-04
  CSI034 3.789817e-05 1.515927e-03 1.080098e-03
                                                         0 2.084399e-03
  CSI045 0.000000e+00 6.530186e-05 1.306037e-04
                                                         0 9.795279e-05
   CSI056 0.000000e+00 7.837144e-05 5.486001e-04
                                                         0 4.114501e-04
   CSI066 3.833694e-05 1.916847e-05 1.916847e-05
                                                         0 1.188445e-03
##
          Otu00610 Otu00611
                                Otu00612 Otu00613
                                                       Otu00614 Otu00615
## CSI002
                 0
                          0 1.362194e-05
                                                 0 0.000000e+00
                                                                        0
##
  CSI013
                 0
                          0 0.00000e+00
                                                 0 0.000000e+00
                                                                        0
## CSI023
                 0
                          0 0.00000e+00
                                                 0 0.00000e+00
                                                                        0
                 0
                                                                        0
## CSI034
                          0 0.00000e+00
                                                 0 1.894908e-05
## CSI045
                 0
                          0 3.265093e-05
                                                 0 0.00000e+00
                                                                        0
                                                                        0
## CST056
                 0
                          0 1.959286e-05
                                                 0 0.00000e+00
##
  CSI066
                 0
                          0 1.916847e-05
                                                 0 0.00000e+00
                                                                        0
##
              Otu00616
                           Otu00617
                                                      Otu00619
                                                                    0 \pm 1100620
                                         Otu00618
  CSI002 1.362194e-05 2.996826e-04 5.857433e-04 0.000000e+00 0.000000e+00
  CSI013 1.917484e-04 2.876226e-04 1.438113e-03 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00 2.041025e-05 4.082049e-05 0.000000e+00 0.000000e+00
  CSI034 3.789817e-05 9.474542e-04 1.004301e-03 1.894908e-05 0.000000e+00
  CSI045 6.530186e-05 0.000000e+00 0.000000e+00 0.000000e+00 1.959056e-04
  CSI056 1.293129e-03 6.994651e-03 3.918572e-05 0.000000e+00 3.526715e-04
   CSI066 0.000000e+00 3.833694e-05 9.584236e-05 0.000000e+00 2.683586e-04
              Otu00621 Otu00622 Otu00623
##
                                              Otu00624
                                                            Otu00625 Otu00626
  CSI002 1.076133e-03
                              0
                                        0 0.000000e+00 4.359020e-04
                                                                            0
                              0
  CSI013 3.131891e-03
                                        0 0.000000e+00 7.989518e-04
                                                                            0
  CSI023 1.428717e-04
                              0
                                        0 0.000000e+00 1.632820e-04
                                                                            0
## CSI034 2.179145e-03
                              0
                                        0 0.000000e+00 5.684725e-04
                                                                            0
                              0
                                        0 0.000000e+00 6.856695e-04
  CSI045 4.897639e-04
                                                                            0
## CSI056 1.959286e-05
                              0
                                        0 0.000000e+00 6.857501e-04
                                                                            0
## CSI066 1.533478e-04
                              0
                                        0 0.000000e+00 0.000000e+00
                                                                            0
##
              Otu00627 Otu00628
                                     Otu00629
                                                  Otu00630
                                                                Otu00631
```

```
## CSI002 2.315729e-04
                               0 7.628285e-04 2.043291e-04 0.000000e+00
## CSI013 2.077275e-03
                               0 6.391614e-04 3.515388e-04 1.949442e-03
                               0 2.041025e-05 2.041025e-05 0.000000e+00
## CSI023 1.020512e-04
                               0 7.769124e-04 3.221344e-04 0.000000e+00
  CSI034 1.402232e-03
  CSI045 0.000000e+00
                               0 3.265093e-05 0.000000e+00 6.530186e-05
  CSI056 9.796430e-05
                               0 1.684986e-03 4.369208e-03 0.000000e+00
   CSI066 2.683586e-04
                               0 5.367172e-04 3.833694e-05 2.108532e-04
##
          Otu00632 Otu00633
                                 Otu00634 Otu00635
                                                        Otu00636 Otu00637
## CSI002
                 0
                           0 1.225974e-03
                                                  0 0.000000e+00
                                                                         0
                                                                         Λ
## CSI013
                 0
                           0 2.876226e-04
                                                  0 6.072033e-04
## CSI023
                 0
                           0 6.123074e-05
                                                  0 0.00000e+00
                                                                         0
                 0
                                                  0 0.000000e+00
                                                                         0
## CSI034
                           0 4.358289e-04
##
  CSI045
                 0
                           0 6.530186e-05
                                                  0 9.795279e-05
                                                                         0
                           0 1.763357e-03
                                                  0 2.155215e-04
## CSI056
                  0
                                                                         0
  CSI066
                 0
                           0 3.833694e-05
                                                  0 1.801836e-03
##
                                                                         0
##
              Otu00638 Otu00639
                                     Otu00640
                                                   Otu00641 Otu00642
                               0 0.000000e+00 1.089755e-04
##
  CSI002 2.315729e-04
                                                                    0
   CSI013 6.391614e-04
                               0 0.000000e+00 1.278323e-04
                                                                    0
  CSI023 0.000000e+00
                               0 0.000000e+00 6.123074e-05
                                                                    0
## CSI034 4.168798e-04
                               0 3.789817e-05 2.084399e-04
                                                                    0
  CSI045 0.000000e+00
                               0 0.000000e+00 9.795279e-05
                                                                    0
   CSI056 1.959286e-04
                               0 0.000000e+00 4.702286e-04
                                                                    0
## CSI066 5.750542e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                            Otu00644
              Otu00643
                                          Otu00645
                                                       Otu00646 Otu00647
## CSI002 0.000000e+00 0.000000e+00 0.0000000000 6.674749e-04
   CSI013 0.000000e+00 0.000000e+00 0.0000000000 3.195807e-03
                                                                        0
   CSIO23 0.000000e+00 0.000000e+00 0.0000000000 8.164098e-05
                                                                        0
   CSI034 0.000000e+00 1.894908e-05 0.0000000000 1.838061e-03
                                                                        0
   CSIO45 0.000000e+00 0.000000e+00 0.0000000000 1.306037e-04
                                                                        0
   CSI056 0.000000e+00 0.000000e+00 0.0000000000 1.371500e-04
                                                                        0
##
   CSI066 7.667389e-05 0.000000e+00 0.0007859073 4.217064e-04
                                                                        0
##
          Otu00648 Otu00649
                                 Otu00650
                                               Otu00651 Otu00652 Otu00653
## CSI002
                 0
                           0 6.129872e-04 8.581820e-04
                                                                0
                                                                         0
## CSI013
                           0 1.757694e-03 1.821610e-03
                                                                0
                                                                         0
                 0
## CSI023
                 0
                           0 4.082049e-05 3.061537e-04
                                                                0
                                                                         0
                           0 3.183446e-03 1.838061e-03
                                                                0
## CST034
                 0
                                                                         0
## CSI045
                 0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                         0
## CSI056
                 0
                           0 2.351143e-04 1.959286e-05
                                                                0
                                                                         0
                 0
                            1.916847e-05 0.000000e+00
                                                                0
##
  CST066
          Otu00654 Otu00655 Otu00656
##
                                           Otu00657 Otu00658 Otu00659
## CSI002
                 0
                           0
                                    0 1.498413e-04
                                                           0
## CSI013
                 0
                           0
                                    0 5.432872e-03
                                                           0
                                                                     0
## CSI023
                 0
                           0
                                    0 2.041025e-05
                                                           0
                                                                     0
                           0
                                                            0
## CSI034
                 0
                                    0 3.979308e-04
                                                                     Λ
## CSI045
                 0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
## CSI056
                                                            0
                 0
                           0
                                    0 0.00000e+00
                                                                     0
##
  CSI066
                 0
                           0
                                    0 1.916847e-05
                                                           0
##
              Otu00660 Otu00661
                                     Otu00662 Otu00663 Otu00664 Otu00665
## CSI002 7.083407e-04
                               0 5.448775e-04
                                                      0
                                                                0
                                                                         0
## CSI013 2.364897e-03
                               0 6.391614e-05
                                                      0
                                                                0
                                                                         0
                                                      0
                                                                0
                                                                         0
## CSI023 6.123074e-05
                               0 5.306664e-04
## CSI034 1.345385e-03
                               0 1.515927e-04
                                                      0
                                                                0
                                                                         0
## CSI045 6.530186e-05
                               0.0.000000e+00
                                                      0
                                                                0
                                                                         0
## CSI056 1.567429e-04
                               0 0.00000e+00
                                                      0
                                                                0
                                                                         0
```

```
## CSI066 2.300217e-04
                               0 0.00000e+00
                                                                        0
##
                           Ot:1100667
                                                      Ot:1100669
              Ot:1100666
                                         Ot.1100668
                                                                    Ot:1100670
  CSI002 0.0000000000 0.000000000 0.000000e+00 0.000000e+00 2.724387e-04
  CSI013 0.0003515388 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023 0.0002041025 0.0000000000 2.041025e-05 0.000000e+00 6.123074e-05
  CSI034 0.0002463381 0.0000000000 0.000000e+00 5.684725e-05 1.515927e-04
  CSI045 0.0000000000 0.0003591602 0.000000e+00 6.530186e-05 1.403990e-03
  CSI056 0.0002938929 0.0006661573 0.000000e+00 2.840965e-03 0.000000e+00
  CSI066 0.0000000000 0.0003833694 0.000000e+00 1.916847e-04 1.916847e-05
                                     Otu00673 Otu00674
##
              Otu00671 Otu00672
                                                            Otu00675 Otu00676
  CSI002 1.362194e-05
                               0 0.00000e+00
                                                     0 1.362194e-05
                                                                            0
                                                                            0
##
  CSI013 3.195807e-05
                               0 0.00000e+00
                                                     0 9.587421e-05
  CSI023 0.000000e+00
                               0 0.000000e+00
                                                     0 0.000000e+00
                                                                            0
  CSI034 0.000000e+00
                               0 0.00000e+00
                                                     0 3.789817e-05
                                                                            0
  CSI045 7.836223e-04
                               0 0.00000e+00
                                                     0.0.000000e+00
                                                                            0
  CSI056 2.155215e-04
                               0 0.00000e+00
                                                     0 0.00000e+00
##
  CSI066 4.025379e-04
                               0 9.143361e-03
                                                     0 0.00000e+00
##
              Otu00677
                           Otu00678
                                         Otu00679
                                                      Otu00680 Otu00681
## CSI002 9.535356e-05 0.000000e+00 1.362194e-05 5.448775e-05
                                                                       0
## CSI013 3.195807e-05 3.195807e-05 0.000000e+00 1.278323e-04
                                                                       0
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00 6.123074e-05
                                                                       0
  CSI034 1.894908e-05 0.000000e+00 9.474542e-05 2.842363e-04
  CSI045 1.306037e-04 0.000000e+00 8.489242e-04 0.000000e+00
                                                                       0
  CSI056 7.249358e-04 0.000000e+00 1.959286e-05 5.877858e-05
  CSI066 4.217064e-04 1.916847e-05 1.437635e-03 0.000000e+00
                                                                       0
##
          Otu00682
                       Otu00683 Otu00684 Otu00685 Otu00686
                                                                 Otu00687
## CSI002
                                        0
                                                 0
                                                          0 6.674749e-04
                 0 0.000000e+00
## CSI013
                 0 0.00000e+00
                                        0
                                                 0
                                                          0 5.592662e-03
                                        0
                                                 0
## CSI023
                 0 0.00000e+00
                                                          0 1.020512e-04
## CSI034
                 0 1.894908e-05
                                        0
                                                 0
                                                          0 3.297141e-03
## CSI045
                 0 0.00000e+00
                                        0
                                                 0
                                                          0 0.00000e+00
##
  CSI056
                 0 3.918572e-05
                                        0
                                                 0
                                                          0.3.918572e-05
##
   CSI066
                 0 2.261880e-03
                                        0
                                                          0 0.00000e+00
##
          Otu00688
                       Otu00689
                                     Otu00690
                                                  Otu00691 Otu00692
  CSI002
                 0 7.355846e-04 1.362194e-03 1.634632e-04
##
                                                                   0
  CSI013
                 0 2.077275e-03 1.438113e-03 1.278323e-04
                                                                   0
##
## CSI023
                 0 1.020512e-04 0.000000e+00 0.000000e+00
                                                                   0
## CSI034
                 0 3.069752e-03 5.495234e-04 3.789817e-05
                                                                   0
                 0 1.632546e-04 9.795279e-05 0.000000e+00
  CST045
                 0 4.702286e-04 0.000000e+00 1.959286e-05
                                                                   0
##
  CSI056
                 0 5.558857e-04 2.491901e-04 9.584236e-05
   CST066
##
              Otu00693 Otu00694 Otu00695 Otu00696
                                                       Ot:1100697
                                                                     Ot.1100698
  CSI002 0.0000000000
                               0
                                        0
                                                 0 5.176336e-04 1.362194e-05
                                        0
  CSI013 0.0000000000
                               0
                                                 0 5.752453e-04 0.000000e+00
  CSI023 0.0000000000
                               0
                                        0
                                                 0 1.224615e-04 0.000000e+00
                               0
                                        0
                                                 0 5.305743e-04 1.894908e-05
## CSI034 0.0001515927
  CSI045 0.0000000000
                               0
                                        0
                                                 0 1.306037e-04 3.591602e-04
   CSI056 0.0000000000
                               0
                                        0
                                                 0 7.837144e-05 7.837144e-05
##
  CSI066 0.0000000000
                               0
                                        0
                                                 0 2.683586e-04 0.000000e+00
##
          Otu00699
                       Otu00700 Otu00701
                                              Otu00702
                                                            Otu00703
                 0 0.000000e+00
## CSI002
                                        0 3.541704e-04 0.000000e+00
## CSI013
                 0 0.00000e+00
                                        0 9.587421e-04 0.000000e+00
                                        0 6.123074e-05 0.000000e+00
## CSI023
                 0 0.00000e+00
## CSI034
                 0 1.894908e-05
                                        0 1.648570e-03 0.000000e+00
```

```
## CSI045
                  0 0.000000e+00
                                         0 9.795279e-05 6.530186e-04
  CST056
                  0 1.959286e-05
                                         0 2.938929e-04 1.097200e-03
##
  CSI066
                  0 0.000000e+00
                                         0 1.073434e-03 1.533478e-04
##
              Otu00704 Otu00705 Otu00706 Otu00707 Otu00708 Otu00709
  CSI002 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
  CSI013 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                     0
                               0
  CSI023 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
## CSI034 1.894908e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI045 8.815751e-04
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                         0
   CSI056 0.000000e+00
                               0
                                                  Λ
                                                            0
                                                                     Λ
   CSI066 2.491901e-04
                               0
                                         0
                                                  0
                                                            0
                            Otu00711 Otu00712 Otu00713 Otu00714 Otu00715
##
              Otu00710
##
   CSI002 2.724387e-05 1.362194e-05
                                             0
                                                      0
                                                                0
                                                                          0
                                                                0
   CSI013 6.391614e-05 0.000000e+00
                                             0
                                                      0
                                                                          0
   CSI023 0.000000e+00 1.428717e-04
                                                                0
                                                                          0
                                             0
                                                      0
   CSI034 1.894908e-05 2.804464e-03
                                             0
                                                      0
                                                                0
                                                                          0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                                0
                                                      0
                                                                          0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                                0
##
                                                      0
                                                                          0
##
              Otu00716
                            Otu00717 Otu00718 Otu00719 Otu00720
                                                                       Otu00721
  CSI002 0.0000000000 2.588168e-04
##
                                             Λ
                                                      0
                                                                0 0.000000e+00
  CSI013 0.0007989518 1.278323e-04
                                             0
                                                      0
                                                                0 0.000000e+00
## CSI023 0.000000000 6.123074e-05
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI034 0.0000000000 9.474542e-05
                                             0
                                                      0
                                                                0 0.00000e+00
                                             0
   CSI045 0.0000000000 0.000000e+00
                                                      Ω
                                                                0 3.265093e-05
   CSI056 0.0000979643 0.000000e+00
                                             0
                                                      Λ
                                                                0 7.719587e-03
   CSI066 0.0000000000 0.000000e+00
                                             0
                                                      0
##
                                                                0 1.150108e-04
##
              Otu00722
                            Otu00723 Otu00724
                                                   Otu00725 Otu00726 Otu00727
   CSI002 2.043291e-04 1.634632e-04
                                             0 9.535356e-05
                                                                    0
                                                                              0
   CSI013 1.054616e-03 3.195807e-05
                                             0 1.917484e-04
                                                                    0
                                                                              0
   CSI023 2.041025e-05 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI034 1.212741e-03 1.894908e-04
                                             0 8.148106e-04
                                                                    0
                                                                              0
   CSI045 6.530186e-05 0.000000e+00
                                             0 1.632546e-04
                                                                    0
                                                                              0
   CSI056 1.508650e-03 0.000000e+00
                                             0 1.371500e-04
                                                                    0
                                                                              0
   CSI066 7.667389e-05 0.000000e+00
                                             0 1.533478e-04
                                                                    0
##
                        Otu00729 Otu00730 Otu00731
                                                        Otu00732 Otu00733
          Otu00728
##
## CSI002
                  0 0.00000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
## CSI013
                  0 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
## CSI023
                  0 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
                                         0
                                                                          0
## CSI034
                  0.000000e+00
                                                  0.000000e+00
                                         0
   CSI045
                  0 3.265093e-05
                                                  0 4.897639e-04
                                                                          0
                  0 1.332315e-03
                                         0
                                                  0 4.310429e-04
                                                                          0
##
  CST056
##
   CST066
                  0 9.200866e-04
                                         0
                                                  0 0.00000e+00
                                                                          0
                                 Otu00736
                                               Otu00737 Otu00738
##
          Otu00734 Otu00735
                                                                       Otu00739
## CSI002
                  0
                           0 5.448775e-05 1.362194e-05
                                                                0 2.724387e-04
## CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 1.086574e-03
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0 6.123074e-05
                  0
## CSI034
                           0 1.894908e-05 0.000000e+00
                                                                0 4.358289e-04
                                                                0 3.265093e-05
## CSI045
                  0
                           0 3.918111e-04 0.000000e+00
##
  CSI056
                  0
                           0 4.310429e-04 0.000000e+00
                                                                0 2.938929e-04
                           0 2.875271e-04 0.000000e+00
##
   CST066
                  0
                                                                0 5.750542e-05
##
              Otu00740
                            Otu00741
                                          Otu00742 Otu00743 Otu00744 Otu00745
## CSI002 7.900723e-04 0.000000e+00 9.535356e-04
                                                           0
                                                                    0
                                                                              0
## CSI013 1.310281e-03 0.000000e+00 3.515388e-04
                                                           0
                                                                    0
                                                                              0
```

```
## CSI023 2.653332e-04 0.000000e+00 4.082049e-05
                                                                              0
   CSI034 5.874216e-04 1.894908e-05 1.136945e-04
                                                           0
                                                                    0
                                                                              0
   CSI045 0.000000e+00 0.000000e+00 1.306037e-04
                                                           0
                                                                    0
                                                                              0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                    0
                                                                              0
##
   CSI066 0.000000e+00 0.000000e+00 1.533478e-04
                                                           0
                                                                    0
                                                                              0
          Otu00746 Otu00747
                                 Otu00748 Otu00749
                                                                      Otu00751
##
                                                         Otu00750
  CSI002
                  0
                           0 6.810968e-05
                                                  0 0.000000e+00 1.225974e-04
## CSI013
                  0
                           0 1.278323e-04
                                                  0 6.391614e-05 7.030776e-04
##
  CSI023
                  0
                           0 0.000000e+00
                                                  0 0.000000e+00 1.224615e-04
##
  CSI034
                  0
                           0 2.463381e-04
                                                  0 5.154151e-03 1.117996e-03
   CSI045
                  0
                           0 3.265093e-05
                                                    0.000000e+00 3.265093e-05
                  0
                                                    0.000000e+00 5.877858e-05
##
   CSI056
                           0
                             9.796430e-05
##
   CSI066
                  0
                           0 3.642010e-04
                                                  0 0.000000e+00 0.000000e+00
                                           Otu00755
##
          Otu00752 Otu00753 Otu00754
                                                    Otu00756 Otu00757
## CSI002
                  0
                           0
                                     0 0.0006674749
                                                            0
                                                                     0
##
   CSI013
                  0
                           0
                                     0 0.0005752453
                                                            0
                                                                     0
                           0
                                                            0
##
  CSI023
                  0
                                     0 0.0000000000
                                                                     0
   CSI034
                  0
                           0
                                     0 0.0003410835
                                                            0
                                                                     0
  CSI045
                           0
                                                            0
##
                  0
                                     0 0.000000000
                                                                     0
##
   CSI056
                  0
                           0
                                     0 0.000000000
                                                            0
                                                                     0
##
   CST066
                  0
                           0
                                     0.000000000
                                                            Λ
                                                                     0
              Otu00758 Otu00759
                                                                 Otu00762
##
                                      Ot:1100760
                                                   Ot:1100761
                               0 2.724387e-05 0.000000e+00 0.000000e+00
## CSI002 0.0004086581
   CSI013 0.0016937778
                               0 6.391614e-05 0.000000e+00 0.000000e+00
   CSI023 0.0005306664
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI034 0.0016296212
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 1.959056e-04 0.000000e+00 3.265093e-05
   CSI045 0.0000000000
   CSI056 0.0006857501
                               0 3.134858e-04 1.959286e-05 0.000000e+00
                               0 7.284019e-04 0.000000e+00 0.000000e+00
##
   CSI066 0.0002108532
##
              Otu00763 Otu00764 Otu00765 Otu00766 Otu00767
                                                                  Otu00768
##
   CSI002 1.498413e-04
                               0
                                         0
                                                  0
                                                            0 1.498413e-04
   CSI013 3.515388e-04
                               0
                                         0
                                                  0
                                                            0 1.917484e-04
   CSI023 4.082049e-05
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
                               0
                                                  0
   CSI034 3.031853e-04
                                         0
                                                            0 4.168798e-04
   CSI045 2.938584e-04
                               0
                                         0
                                                  0
                                                            0 9.795279e-05
   CSI056 1.959286e-04
                               0
                                         0
                                                  0
##
                                                            0 2.547072e-04
##
   CSI066 1.916847e-05
                               0
                                         0
                                                  0
                                                            0 2.875271e-04
##
              Otu00769
                            Otu00770
                                          Otu00771 Otu00772 Otu00773
   CSI002 0.000000e+00 0.000000e+00 5.176336e-04
                                                                    0
                                                           0
   CSI013 0.000000e+00 0.000000e+00 2.237065e-04
                                                                    0
                                                           0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                           0
   CSI034 0.000000e+00 1.894908e-05 1.212741e-03
                                                           0
                                                                    0
   CSI045 0.000000e+00 0.000000e+00 6.530186e-05
                                                           0
                                                                    0
                                                                    0
   CSI056 0.000000e+00 0.000000e+00 1.763357e-04
                                                           Λ
   CSI066 1.916847e-05 0.000000e+00 1.533478e-04
                                                           0
              Otu00774 Otu00775 Otu00776 Otu00777
##
                                                                      Otu00779
                                                         Otu00778
   CSI002 1.362194e-05
                               0
                                         0
                                                  0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                               0
                                         0
                                                    0.000000e+00 0.000000e+00
   CSI034 0.000000e+00
                               0
                                         0
                                                    0.000000e+00 1.894908e-05
                               0
                                         0
                                                    0.000000e+00 6.530186e-05
   CSI045 1.306037e-04
   CSI056 5.290072e-04
                               0
                                         0
                                                  0 1.959286e-05 5.877858e-05
                                                  0 0.000000e+00 5.750542e-05
##
  CSI066 1.150108e-04
                               0
                                         0
##
              Otu00780 Otu00781 Otu00782 Otu00783 Otu00784 Otu00785
```

```
## CSI002 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
  CSI013 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
  CSI023 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
  CSI034 0.000000e+00
                               0
                                        0
                                                  0
                                                           Λ
                                                                    0
  CSI045 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                  0
                                                           0
  CSI056 0.000000e+00
                               0
                                        0
                                                                    0
##
  CSI066 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                     Otu00788 Otu00789 Otu00790
##
              Otu00786 Otu00787
                                                                     Otu00791
  CSI002 2.724387e-04
                               0 0.00000e+00
                                                      0
                                                               0 0.000000e+00
  CSI013 4.154549e-04
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI034 3.221344e-04
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
   CSI045 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0 5.550658e-04
   CSI056 1.567429e-04
                               0 0.00000e+00
                                                      0
                                                               0 2.351143e-04
  CSI066 2.875271e-04
                               0 0.000000e+00
##
                                                      0
                                                               0 1 686826e-03
##
              Otu00792
                            Otu00793
                                         Otu00794
                                                       Otu00795 Otu00796
  CSI002 4.086581e-05 0.0002996826 0.000000e+00 0.000000e+00
##
                                                                        0
   CSI013 5.113291e-04 0.0017896520 0.000000e+00 0.000000e+00
                                                                        0
  CSI023 2.041025e-05 0.0001224615 0.000000e+00 0.000000e+00
                                                                        0
   CSI034 9.664033e-04 0.0003410835 1.894908e-05 0.000000e+00
                                                                        0
   CSI045 3.591602e-04 0.0001306037 0.000000e+00 0.000000e+00
                                                                        0
   CSI056 6.857501e-04 0.0006269715 2.978115e-03 0.000000e+00
  CSI066 0.000000e+00 0.0001725162 3.833694e-05 0.000000e+00
##
                                                                        0
##
              Otu00797 Otu00798
                                     Otu00799
                                                   Otu00800
                                                                Ot:1100801
## CSI002 5.448775e-05
                               0 3.677923e-04 0.000000e+00 0.000000e+00
  CSI013 9.587421e-05
                               0 1.246365e-03 0.000000e+00 2.237065e-04
  CSI023 0.000000e+00
                               0 1.224615e-04 0.000000e+00 6.123074e-05
   CSI034 7.579634e-05
                               0 7.011161e-04 0.000000e+00 1.894908e-05
                               0 1.959056e-04 9.795279e-05 1.306037e-04
   CSI045 0.000000e+00
   CSI056 3.918572e-05
                               0 0.000000e+00 1.743765e-03 1.959286e-05
##
  CSI066 3.833694e-05
                               0 9.584236e-05 7.092335e-04 4.408748e-04
##
              Otu00802
                            Otu00803
                                         Otu00804 Otu00805 Otu00806 Otu00807
   CSI002 8.173162e-05 5.448775e-04 6.810968e-04
                                                          0
                                                                    0
                                                                             0
  CSI013 2.556646e-04 2.556646e-04 1.597904e-03
                                                                    0
                                                                             0
                                                          0
   CSI023 0.000000e+00 6.123074e-05 4.082049e-05
                                                          0
                                                                    0
                                                                             0
  CSI034 1.894908e-04 4.737271e-04 2.198094e-03
                                                          0
                                                                    0
                                                                             0
   CSI045 0.000000e+00 0.000000e+00 3.265093e-05
                                                                    0
                                                                             0
  CSI056 9.796430e-05 3.918572e-05 0.000000e+00
                                                          0
                                                                    0
                                                                             0
  CSI066 1.533478e-04 2.376890e-03 1.916847e-05
                                                          0
##
                                                                    0
##
              Otu00808 Otu00809 Otu00810
                                              Otu00811 Otu00812
                                                                      Ot:1100813
  CSI002 2.315729e-04
                               0
                                        0 4.086581e-05
                                                               0 0.000000e+00
  CSI013 1.182449e-03
                               0
                                                               0 0.00000e+00
                                        0 0.000000e+00
  CSI023 6.123074e-05
                               0
                                        0 0.00000e+00
                                                               0 0.00000e+00
  CSI034 3.031853e-04
                               0
                                        0 5.684725e-05
                                                               0 0.00000e+00
  CSI045 3.265093e-05
                               0
                                        0 0.00000e+00
                                                               0 0.00000e+00
  CSI056 3.918572e-05
                               0
                                        0 0.00000e+00
                                                               0 1.959286e-05
##
  CSI066 2.108532e-04
                               0
                                        0
                                          0.000000e+00
                                                               0 7.667389e-05
##
          Otu00814
                        Otu00815 Otu00816
                                               Otu00817 Otu00818
                                                                      Otu00819
                 0 6.810968e-05
## CSI002
                                        0 2 724387e-05
                                                               0 0.000000e+00
  CSI013
                 0 6.391614e-05
                                        0 3.195807e-05
                                                               0 0.00000e+00
##
##
  CSI023
                 0 0.00000e+00
                                        0 0.00000e+00
                                                               0 0.00000e+00
## CSI034
                 0 4.168798e-04
                                        0 3.031853e-04
                                                               0 1.894908e-05
## CSI045
                 0 3.265093e-05
                                        0 0.00000e+00
                                                               0 0.00000e+00
## CSI056
                 0 1.645800e-03
                                        0 1.959286e-05
                                                               0 0.00000e+00
```

```
## CSI066
                 0 2.108532e-04
                                        0 0.00000e+00
                                                               0 0.00000e+00
##
          Ot:100820 Ot:100821
                                 Ot:1100822
                                              Ot:1100823
                                                            Ot:1100824
## CSI002
                 0
                          0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI013
                 0
                           0 6.902943e-03 0.000000e+00 0.000000e+00
##
  CSI023
                 0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
                 0
                           0 1.894908e-05 1.894908e-05 0.000000e+00
  CSI034
##
  CSI045
                 0
                           0 0.000000e+00 3.265093e-05 0.000000e+00
## CSI056
                           0 4.506358e-04 0.000000e+00 6.661573e-03
                 0
##
  CSI066
                 0
                           0 0.000000e+00 5.942226e-04 0.000000e+00
                            Otu00826 Otu00827
                                                  Otu00828 Otu00829 Otu00830
##
              Otu00825
  CSI002 2.860607e-04 0.000000e+00
                                            0 0.00000e+00
                                                                   0
                                                                            0
  CSI013 6.391614e-04 0.000000e+00
                                                                   0
                                            0 0.00000e+00
                                                                            0
  CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                   0
                                                                             0
  CSI034 1.155894e-03 0.000000e+00
                                            0 1.894908e-05
                                                                   0
                                                                             0
  CSI045 0.000000e+00 0.000000e+00
                                                                   0
                                            0.0.000000e+00
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                   0
  CSI066 0.000000e+00 0.000000e+00
                                                                   0
                                            0 0.00000e+00
                                                                             0
##
          Otu00831 Otu00832
                                 Otu00833 Otu00834 Otu00835
                                                                 Otu00836
## CST002
                 0
                           0 0.000000e+00
                                                 0
                                                           0 0.000000000
## CSI013
                 0
                           0 0.000000e+00
                                                 0
                                                           0 0.000000000
##
  CSI023
                 0
                           0 0.000000e+00
                                                 0
                                                           0 0.000000000
                 0
                                                 0
## CST034
                           0 1.894908e-05
                                                           0.00000000000
                 Ω
                                                 0
## CSI045
                           0 0.00000e+00
                                                           0 0.000000000
                                                 0
##
  CSI056
                 0
                           0 0.000000e+00
                                                           0 0.0006465644
##
  CSI066
                 0
                           0 0.000000e+00
                                                 0
                                                           0 0.0001150108
##
              Otu00837 Otu00838
                                     Otu00839 Otu00840 Otu00841
                                                                     Otu00842
## CSI002 1.362194e-05
                               0 0.000000e+00
                                                     0
                                                               0 4.767678e-04
  CSI013 0.000000e+00
                               0 0.00000e+00
                                                     0
                                                               0 2.876226e-04
                                                     0
  CSI023 0.000000e+00
                               0 2.041025e-05
                                                               0 6.123074e-05
  CSI034 0.000000e+00
                               0 5.684725e-05
                                                     0
                                                               0 3.031853e-04
  CSI045 0.000000e+00
                               0 1.306037e-04
                                                     0
                                                               0 3.265093e-05
   CSI056 0.000000e+00
                               0 9.796430e-05
                                                     0
                                                               0 3.330786e-04
   CSI066 0.000000e+00
                               0 5.175487e-04
                                                     0
                                                               0 3.833694e-05
                            Otu00844 Otu00845 Otu00846 Otu00847
##
              Otu00843
                                                                     Otu00848
  CSI002 0.000000e+00 0.000000e+00
                                            0
                                                     0
                                                               0 0.000000000
  CSI013 3.195807e-05 0.000000e+00
                                            0
                                                     0
                                                               0.0000000000
  CSI023 0.000000e+00 2.041025e-05
                                            0
                                                     0
                                                               0 0.000000000
  CSI034 0.000000e+00 0.000000e+00
                                            0
                                                               0 0.000000000
                                                     0
   CSI045 3.265093e-05 0.000000e+00
                                            0
                                                     0
                                                               0 0.0018284520
  CSI056 0.000000e+00 1.959286e-05
                                            Λ
                                                     Λ
                                                               0.0.0008229001
   CSI066 1.916847e-05 4.792118e-04
                                                               0.0020893634
              Otu00849 Otu00850 Otu00851 Otu00852
##
                                                       Ot1100853 Ot1100854
  CSI002 0.000000e+00
                               0
                                        0
                                                 0 2.724387e-05
                                                                        0
  CSI013 0.000000e+00
                               0
                                        0
                                                                        0
                                                 0 6.391614e-05
  CSI023 0.000000e+00
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
                               0
                                        0
                                                                        0
  CSI034 0.000000e+00
                                                 0 3.410835e-04
  CSI045 0.000000e+00
                               0
                                        0
                                                 0 3.591602e-04
                                                                        0
                               0
                                        0
   CSI056 0.000000e+00
                                                 0 8.424930e-04
                                                                        0
##
  CSI066 0.000000e+00
                               0
                                        0
                                                 0
                                                   1.150108e-04
                                                                        0
##
              Otu00855
                            Otu00856
                                         Otu00857
                                                       Otu00858
                                                                    Otu00859
  CSI002 0.0000000000 0.000000e+00 3.677923e-04 0.000000e+00 0.0000000000
  CSI013 0.0000000000 0.000000e+00 1.597904e-04 0.000000e+00 0.000000000
## CSI023 0.0000000000 0.000000e+00 4.082049e-05 0.000000e+00 0.000000000
## CSI034 0.0000000000 1.894908e-05 3.600326e-04 0.000000e+00 0.0001136945
```

```
## CSI045 0.0000000000 3.265093e-05 3.265093e-05 0.000000e+00 0.000000000
  CSI056 0.0104038089 1.430279e-03 7.837144e-05 0.000000e+00 0.0000000000
   CSI066 0.0000000000 1.916847e-04 3.833694e-05 0.000000e+00 0.0000000000
##
          Otu00860 Otu00861 Otu00862
                                         Otu00863 Otu00864
                                                                 0 \pm 1100865
                                    0 0.000000e+00
## CST002
                 0
                          0
                                                           0 0.000000e+00
## CSI013
                 0
                          0
                                    0 0.00000e+00
                                                           0 0.00000e+00
## CSI023
                 0
                          0
                                    0 0.00000e+00
                                                           0 0.00000e+00
## CSI034
                 0
                          0
                                    0 0.00000e+00
                                                           0.000000e+00
  CSI045
                 0
                           0
                                    0 6.530186e-05
                                                           0 0.000000e+00
                 0
                           0
  CSI056
                                    0 1.567429e-04
                                                           0 1.959286e-04
  CSI066
                 0
                           0
                                    0 3.833694e-05
                                                           0 9.584236e-05
##
          Otu00866
                       Otu00867 Otu00868
                                              Otu00869
                                                            Otu00870 Otu00871
##
  CSI002
                 0 0.000000e+00
                                        0 4.767678e-04 1.225974e-04
                                                                             0
## CSI013
                 0 0.00000e+00
                                        0 6.711195e-04 6.391614e-05
                                                                             0
## CSI023
                 0 0.000000e+00
                                        0 4.082049e-05 0.000000e+00
                                                                             0
  CSI034
                 0 0.00000e+00
                                        0 7.011161e-04 3.979308e-04
                                        0 6.530186e-05 2.285565e-04
##
  CSI045
                 0 0.000000e+00
                                                                             0
  CSI056
                 0 0.00000e+00
                                        0 3.918572e-05 7.249358e-04
                                        0 1.533478e-04 3.066955e-04
##
  CST066
                 0 9.584236e-05
                                                                            0
          Otu00872
                       Otu00873 Otu00874 Otu00875
                                                       Otu00876
                                                                     Otu00877
## CSI002
                 0 1.362194e-05
                                        Λ
                                                 0 0.000000e+00 0.000000e+00
## CSI013
                 0 3.195807e-05
                                        0
                                                 0 0.000000e+00 0.000000e+00
## CSI023
                                                 0 2.041025e-05 0.000000e+00
                                        0
                 0 1.224615e-04
                                        0
                                                 0 5.684725e-05 0.000000e+00
## CSI034
                 0 1.894908e-04
                                        0
## CST045
                 0 0.00000e+00
                                                 0 0.000000e+00 1.632546e-04
  CSI056
                 0 0.000000e+00
                                        0
                                                 0 0.000000e+00 7.837144e-05
                 0 0.000000e+00
                                        0
                                                 0 0.000000e+00 7.667389e-05
##
  CSI066
          Otu00878 Otu00879 Otu00880 Otu00881
                                                   Otu00882
                                                                 Otu00883
                          0
                                    0
                                             0 1.362194e-04 0.000000e+00
## CSI002
                 0
## CSI013
                 0
                          0
                                    0
                                             0 4.793711e-04 0.000000e+00
## CSI023
                 0
                           0
                                    0
                                             0 1.428717e-04 0.000000e+00
  CST034
                 0
                          0
                                    0
                                             0 5.684725e-05 2.311788e-03
  CSI045
                 0
                           0
                                    0
                                             0 0.000000e+00 1.175433e-03
                           0
  CSI056
                 0
                                    0
                                             0 0.000000e+00 9.796430e-05
##
                 0
                           0
                                    0
                                             0 0.000000e+00 5.750542e-05
##
   CSI066
              Otu00884
                           Otu00885
                                         Otu00886
                                                      Otu00887 Otu00888
##
  CSI002 0.000000e+00 3.677923e-04 0.0000000000 1.225974e-04
  CSI013 0.000000e+00 8.628679e-04 0.0000000000 3.195807e-05
                                                                       0
   CSI023 0.000000e+00 4.082049e-05 0.0000000000 4.082049e-05
  CSI034 0.000000e+00 6.442688e-04 0.000000000 1.894908e-04
                                                                       0
   CSI045 0.000000e+00 0.000000e+00 0.0000000000 1.959056e-04
  CSI056 0.000000e+00 5.681930e-04 0.000000000 9.796430e-05
                                                                       0
   CSI066 9.584236e-05 1.916847e-05 0.000000000 7.667389e-05
                       Otu00890 Otu00891 Otu00892 Otu00893
##
          Otu00889
                                                                 Otu00894
## CSI002
                 0 0.00000e+00
                                        0
                                                 0
                                                           0 5.448775e-05
## CSI013
                                                 0
                 0 6.391614e-05
                                        0
                                                           0 6.391614e-05
## CSI023
                 0 0.00000e+00
                                        0
                                                 0
                                                           0 0.00000e+00
                                        0
                                                 0
## CSI034
                 0 1.894908e-05
                                                           0 1.705418e-04
                 0 1.306037e-04
                                                           0 9.795279e-05
## CSI045
                                        0
                                                 0
  CSI056
                 0 1.332315e-03
                                        0
                                                 0
                                                           0 5.486001e-04
##
                                        0
                                                 0
##
                 0 5.367172e-04
                                                           0.3.162798e-03
##
          Otu00895 Otu00896 Otu00897 Otu00898 Otu00899 Otu00900 Otu00901
## CSI002
                 0
                          0
                                    0
                                             0
                                                      0
                                                                0
                                                                         0
## CSI013
                 0
                          0
                                    0
                                             0
                                                       0
                                                                0
                                                                         0
```

```
## CSI023
                 0
                           0
                                                                 0
                                                                          0
##
  CST034
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
   CSI045
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
  CSI056
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
##
##
   CST066
                 0
                                              0
                                                       0
                                                                 0
                                                                          0
                                                   Otu00905 Otu00906
##
              Otu00902
                            Otu00903 Otu00904
   CSI002 4.086581e-05 1.362194e-05
                                             0 0.00000e+00
                                                                    0
  CSI013 0.000000e+00 0.000000e+00
                                            0.000000e+00
                                                                    0
   CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
   CSI034 0.000000e+00 1.894908e-05
                                             0 1.894908e-05
                                                                    0
   CSI045 0.000000e+00 5.877167e-04
                                             0 0.00000e+00
                                                                    0
   CSI056 0.000000e+00 2.311958e-03
                                                                    0
                                            0 1.959286e-05
   CSI066 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                     Otu00909 Otu00910
##
              Otu00907 Otu00908
                                                            Otu00911
   CSI002 1.907071e-04
                               0 2.315729e-04
                                                      0 0.000000e+00
##
   CSI013 2.237065e-04
                               0 6.391614e-05
                                                      0 0.00000e+00
   CSI023 4.082049e-05
                               0 6.123074e-05
                                                      0 0.00000e+00
   CSI034 1.515927e-04
                               0 1.705418e-04
                                                      0 7.579634e-05
   CSI045 6.530186e-05
                               0 0.00000e+00
                                                      0 0.000000e+00
   CSI056 3.134858e-04
                               0 0.00000e+00
                                                      0 0.00000e+00
##
   CSI066 5.750542e-05
                               0 0.00000e+00
                                                      0 3.833694e-05
                                     Otu00914 Otu00915
##
              Otu00912 Otu00913
                                                            Otu00916 Otu00917
## CSI002 4.086581e-05
                               0 9.535356e-05
                                                      0 1.116999e-03
                                                                             0
   CSI013 0.000000e+00
                               0 2.556646e-04
                                                      0 1.374197e-03
                                                                             0
                               0 0.00000e+00
   CSI023 0.000000e+00
                                                      0 4.082049e-05
                                                                             0
   CSI034 0.000000e+00
                               0 4.737271e-04
                                                      0 1.894908e-03
                                                                             0
   CSI045 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
                               0 0.00000e+00
   CSI056 9.796430e-05
                               0 5.877858e-05
                                                      0 3.526715e-04
                                                                             0
   CSI066 0.000000e+00
                               0 1.916847e-05
                                                      0 1.341793e-04
                                                                             0
##
##
          Otu00918
                        Otu00919
                                     Otu00920
                                                   Otu00921
                                                                Otu00922
##
  CSI002
                 0 1.362194e-04 4.086581e-05 0.000000000 3.133045e-04
##
   CSI013
                 0 1.374197e-03 9.587421e-05 0.000000000 1.246365e-03
   CSI023
                 0 4.082049e-05 0.000000e+00 0.000000000 1.428717e-04
                 0 8.906069e-04 1.515927e-04 0.000000000 8.906069e-04
   CSI034
##
   CSI045
                  0 3.265093e-05 0.000000e+00 0.000000000 0.000000e+00
                 0 9.796430e-05 5.152922e-03 0.0011755716 3.134858e-04
##
   CST056
##
   CSI066
                  0.000000e+00 0.000000e+00 0.0004792118 1.916847e-05
##
          Otu00923
                        Otu00924 Otu00925
                                               Otu00926 Otu00927 Otu00928
                 0 1.770852e-04
## CSI002
                                        0 0.00000e+00
                                                                0
                                                                         0
  CSI013
                                                                0
                                                                         0
##
                 0 3.195807e-05
                                        0 0.00000e+00
   CSI023
                 0 0.00000e+00
                                        0 0.00000e+00
                                                                0
                                                                         0
   CSI034
                                                                0
                                                                         0
##
                 0 1.705418e-04
                                        0 0.00000e+00
   CSI045
                 0 0.00000e+00
                                        0 0.00000e+00
                                                                0
                                                                         0
                                                                Λ
                  0 1.175572e-04
                                        0 0.00000e+00
                                                                         0
##
   CSI056
##
   CSI066
                  0 0.000000e+00
                                        0 1.916847e-05
                                                                0
                                                            Otu00933
##
              Otu00929
                            Otu00930 Otu00931 Otu00932
   CSI002 0.000000e+00 1.362194e-05
                                            0
                                                      0 1.362194e-05
                                             0
   CSI013 0.000000e+00 1.597904e-04
                                                      0 1.917484e-04
   CSI023 0.000000e+00 0.000000e+00
                                            0
                                                      0 1.020512e-04
   CSI034 0.000000e+00 1.515927e-04
                                             0
                                                      0 7.011161e-04
   CSI045 3.265093e-05 0.000000e+00
                                             0
                                                      0 9.795279e-05
   CSI056 1.626207e-03 2.155215e-04
                                             0
                                                      0 5.877858e-05
##
   CSI066 1.725162e-04 2.108532e-04
                                            0
                                                      0 4.217064e-04
##
              Otu00934
                            Otu00935 Otu00936 Otu00937 Otu00938
                                                                      Otu00939
```

```
## CSI002 3.269265e-04 1.089755e-04
                                             0
                                                      0
                                                                0 4.495239e-04
   CSI013 7.989518e-04 0.000000e+00
                                                                0 1.278323e-03
                                             0
                                                      0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 2.041025e-05
   CSI034 4.547780e-04 9.474542e-05
                                             0
                                                                0 7.390143e-04
                                                      Ω
   CSI045 9.795279e-05 3.591602e-04
                                             0
                                                      0
                                                                0 0.000000e+00
   CSI056 5.877858e-05 1.959286e-05
                                             0
##
                                                      Ω
                                                                0 1.175572e-04
   CSI066 6.325596e-04 9.584236e-05
                                             0
                                                                0 1.150108e-04
##
          Otu00940 Otu00941
                                 Otu00942 Otu00943 Otu00944
                                                                  Otu00945
## CSI002
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.00000e+00
##
  CSI013
                 0
                           0 0.000000e+00
                                                  0
                                                            0 0.00000e+00
  CSI023
                 0
                           0 0.00000e+00
                                                  0
                                                            0 2.041025e-05
                 0
                                                  0
##
  CSI034
                           0 1.894908e-05
                                                            0 5.684725e-05
##
   CSI045
                 0
                           0 0.000000e+00
                                                  0
                                                            0 0.000000e+00
   CSI056
##
                  0
                           0 1.959286e-05
                                                  0
                                                            0 1.959286e-05
   CSI066
                 0
                           0 0.000000e+00
                                                  0
                                                           0 2.300217e-04
##
##
          Otu00946
                       Otu00947
                                    Otu00948 Otu00949
                                                            Otu00950 Otu00951
  CSI002
                 0 0.00000000 0.000000e+00
                                                                            0
##
                                                     0 0.00000e+00
   CSI013
                  0 0.000000000 0.000000e+00
                                                     0 0.00000e+00
                                                                            0
  CSI023
                 0 0.000000000 0.000000e+00
                                                                            0
##
                                                     0 0.00000e+00
##
   CSI034
                  0 0.000000000 0.000000e+00
                                                       1.894908e-05
                                                                            0
##
   CSI045
                  0 0.000000000 0.000000e+00
                                                     0
                                                       0.000000e+00
                                                                            0
                  0 0.000568193 3.918572e-05
                                                                            0
   CST056
                                                     0 0.00000e+00
                  0 0.00000000 0.000000e+00
##
  CSI066
                                                     0 0.00000e+00
                                                                            0
              Otu00952
##
                            Otu00953
                                          Otu00954 Otu00955 Otu00956
   CSI002 1.362194e-05 1.076133e-03 8.173162e-05
                                                           0
                                                                    0
   CSI013 0.000000e+00 6.711195e-04 1.597904e-04
                                                           Λ
                                                                    0
   CSI023 0.000000e+00 2.245127e-04 0.000000e+00
                                                           0
                                                                    0
   CSI034 0.000000e+00 1.345385e-03 0.000000e+00
                                                           0
                                                                    0
   CSI045 0.000000e+00 0.000000e+00 9.795279e-05
                                                           0
                                                                    0
   CSI056 0.000000e+00 0.000000e+00 7.837144e-05
                                                           0
                                                                    0
##
   CSI066 0.000000e+00 1.916847e-05 1.341793e-04
                                                                    0
##
              Otu00957 Otu00958
                                     Otu00959 Otu00960
                                                             0 \pm 1100961
##
   CSI002 1.362194e-04
                               0 1.539279e-03
                                                      0 0.000000000
   CSI013 8.628679e-04
                               0 4.154549e-04
                                                      0 0.000000000
   CSI023 1.020512e-04
                               0 1.428717e-04
                                                      0 0.000000000
   CSI034 7.579634e-04
                               0 3.221344e-04
                                                      0 0.000000000
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                      0 0.0002612074
   CSI056 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000000
##
   CSI066 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000000
##
##
              Otu00962 Otu00963
                                     Otu00964 Otu00965
                                                             Ot1100966 Ot1100967
  CSI002 0.000000e+00
                               0 1.089755e-04
                                                      0 0.00000e+00
                                                                             0
  CSI013 3.195807e-05
                               0 9.587421e-05
                                                      0 0.00000e+00
                                                                             0
   CSI023 0.000000e+00
                               0 1.632820e-04
                                                      0 0.00000e+00
                                                                              0
   CSI034 1.326436e-04
                               0 1.705418e-04
                                                      0 0.00000e+00
                                                                              0
   CSI045 1.306037e-04
                               0 3.265093e-05
                                                      0 9.795279e-05
                                                                              0
   CSI056 0.000000e+00
                               0 7.445287e-04
                                                      0 4.702286e-04
                                                                              0
##
   CSI066 0.000000e+00
                               0 1.150108e-04
                                                      0 3.833694e-05
                                                                              0
##
          Otu00968
                        Otu00969 Otu00970
                                               Otu00971 Otu00972 Otu00973
## CSI002
                 0 1.770852e-04
                                         0 1.362194e-05
                                                                0
                                                                         0
  CSI013
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                0
                                                                         0
##
                                                                0
                                                                         0
##
  CSI023
                 0 0.00000e+00
                                         0 0.00000e+00
## CSI034
                  0 9.474542e-05
                                         0 0.00000e+00
                                                                0
                                                                         0
## CSI045
                 0 0.000000e+00
                                         0 0.00000e+00
                                                                0
                                                                         0
## CSI056
                 0 0.00000e+00
                                         0 0.00000e+00
                                                                0
                                                                         0
```

```
## CSI066
                 0 1.341793e-04
                                        0 0.00000e+00
                                                                         0
##
          Ot:1100974
                                    Otu00976 Otu00977 Otu00978
                                                                     0t.1100979
                        Ot:1100975
## CSI002
                 0 0.000000e+00 0.000000000
                                                     0
                                                              0 0.000000000
## CSI013
                 0 0.000000e+00 0.000000000
                                                     0
                                                              0 0.0000000000
##
  CSI023
                 0 0.000000e+00 0.000000000
                                                     0
                                                              0 0.0000000000
                 0 0.000000e+00 0.000000000
                                                     0
  CSI034
                                                              0 0.000000000
##
                                                     0
  CSI045
                 0 3.265093e-05 0.000000000
                                                              0 0.0005877167
## CSI056
                                                              0 0.000000000
                 0 0.000000e+00 0.000000000
                                                     0
##
   CSI066
                 0 7.859073e-04 0.001399298
                                                     0
                                                              0 0.000000000
                                     Otu00982 Otu00983
##
              Otu00980 Otu00981
                                                            Otu00984 Otu00985
  CSI002 0.000000e+00
                               0 0.00000e+00
                                                      0 2.724387e-05
                                                                             0
   CSI013 0.000000e+00
                               0 6.391614e-05
                                                      0 6.391614e-05
                                                                             0
   CSI023 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000e+00
                                                                             0
                               0 1.894908e-05
                                                      0 1.894908e-05
   CSI034 0.000000e+00
                                                                             0
   CSI045 7.183204e-04
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
   CSI056 7.837144e-05
                               0 3.918572e-05
                                                      0 1.959286e-05
##
   CSI066 6.708965e-04
                               0 5.750542e-05
                                                      0 7.667389e-05
                                                                             0
##
              Otu00986 Otu00987 Otu00988 Otu00989
                                                        Otu00990
                                                                      Otu00991
                                                  0 0.000000e+00 1.362194e-05
## CSI002 6.810968e-05
                               0
                                        0
## CSI013 3.195807e-05
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
  CSI023 4.082049e-05
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
## CSI034 5.684725e-05
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
                                                  0 0.000000e+00 3.265093e-05
## CSI045 3.265093e-05
                                        0
                               0
   CSI056 3.918572e-05
                               0
                                        0
                                                  0 1.116793e-03 1.273536e-03
  CSI066 2.108532e-04
                               0
                                        0
                                                  0 3.066955e-04 0.000000e+00
              Otu00992
                            Otu00993 Otu00994 Otu00995
                                                            Otu00996 Otu00997
  CSI002 1.362194e-05 2.029669e-03
                                            0
##
                                                      0 0.000000e+00
                                                                             0
   CSI013 3.195807e-05 2.237065e-04
                                             0
                                                      0 0.00000e+00
                                                                             0
   CSI023 0.000000e+00 4.082049e-05
                                             0
                                                      0 0.000000e+00
                                                                             0
   CSI034 1.326436e-04 9.474542e-05
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI045 6.530186e-05 0.000000e+00
                                             0
                                                      0 0.000000e+00
                                                                             0
   CSI056 5.877858e-05 1.567429e-04
                                             0
                                                      0 5.877858e-05
                                                                             0
   CSI066 4.983803e-04 0.000000e+00
                                             0
                                                      0 1.418467e-03
##
              Otu00998
                            Otu00999
                                         Otu01000
                                                       Otu01001 Otu01002
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00 4.086581e-05
                                                                        0
   CSI013 0.000000e+00 3.195807e-05 0.000000e+00 3.195807e-05
                                                                        0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI034 0.000000e+00 1.894908e-05 0.000000e+00 3.221344e-04
                                                                        0
   CSI045 6.530186e-05 9.795279e-05 3.265093e-05 3.265093e-05
                                                                        0
   CSI056 1.763357e-04 1.959286e-05 1.959286e-05 1.959286e-05
                                                                        0
   CSI066 7.667389e-05 3.642010e-04 1.916847e-05 1.916847e-05
          Otu01003
                        Otu01004
                                     Otu01005
                                                   Otu01006 Otu01007 Otu01008
##
##
  CSI002
                 0 0.000000e+00 1.362194e-05 0.000000e+00
                                                                    0
                                                                             0
                                                                    0
  CSI013
                 0 0.000000e+00 2.237065e-04 0.000000e+00
                                                                             0
##
## CSI023
                 0 0.000000e+00 2.041025e-05 0.000000e+00
                                                                    0
                                                                             0
                 0 0.000000e+00 1.307487e-03 0.000000e+00
## CSI034
                                                                    0
                                                                             0
##
  CSI045
                 0 0.000000e+00 1.306037e-04 1.403990e-03
                                                                    0
                                                                             0
##
   CSI056
                  0 3.918572e-05 1.959286e-05 1.959286e-05
                                                                    0
                                                                             0
##
   CST066
                 0 3.066955e-04 0.000000e+00 1.341793e-04
                                                                    0
                                                                             0
##
          Otu01009 Otu01010 Otu01011
                                          Otu01012 Otu01013
                                                                  Otu01014
## CSI002
                                    0 1.089755e-04
                 0
                           0
                                                           0 7.900723e-04
                           0
## CSI013
                 0
                                    0 6.391614e-05
                                                           0 5.432872e-04
                                                           0 6.123074e-05
## CSI023
                 0
                           0
                                    0 0.000000e+00
## CSI034
                 0
                           0
                                    0 1.136945e-04
                                                           0 8.527088e-04
```

```
## CSI045
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CST056
                                                            0 0.000000e+00
                  0
                           0
                                     0 0.00000e+00
                                     0 0.000000e+00
##
   CSI066
                  0
                           0
                                                            0 1.725162e-04
##
          Otu01015 Otu01016 Otu01017 Otu01018 Otu01019
                                                              Otu01020 Otu01021
                                                        0 0.000000e+00
##
  CST002
                  0
                           0
                                     0
                                              0
  CSI013
                           0
                                     0
                                              0
##
                  0
                                                        0 0.00000e+00
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                        0 0.000000e+00
## CSI034
                  0
                           0
                                     0
                                              0
##
   CSI045
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                           0
                                     0
                                              0
##
   CSI056
                  0
                                                        0 3.526715e-04
   CSI066
                  0
                           0
                                     0
                                              0
                                                        0 5.750542e-05
##
          Otu01022
                        Otu01023 Otu01024 Otu01025
                                                         Otu01026
                                                                      Otu01027
##
   CSI002
                  0 0.000000e+00
                                         0
                                                  0 8.173162e-05 0.000000e+00
                                         0
##
   CSI013
                  0 0.000000e+00
                                                  0 2.556646e-04 0.000000e+00
  CSI023
                  0 0.000000e+00
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
   CSI034
                  0 0.00000e+00
                                         0
                                                  0 4.168798e-04 1.894908e-05
                                         0
                                                  0 3.265093e-05 2.285565e-04
##
   CSI045
                  0 0.000000e+00
   CSI056
                   0.000000e+00
                                         0
                                                    1.959286e-05 5.290072e-04
##
                                         0
##
   CST066
                  0
                   0.000000e+00
                                                  0 0.000000e+00 2.683586e-04
##
          Otu01028
                        Otu01029 Otu01030 Otu01031 Otu01032
                                                                  Otu01033
##
  CSI002
                  0 0.000000e+00
                                         Λ
                                                  0
                                                            0 0.00000e+00
  CSI013
                  0 0.000000e+00
                                         0
                                                  0
                                                            0 0.000000e+00
## CSI023
                                                  0
                  0 0.00000e+00
                                         0
                                                            0 0.00000e+00
                                         0
  CSI034
                  0 1.894908e-05
                                                  0
                                                            0 0.00000e+00
                                         0
                                                  0
##
  CST045
                  0 0.00000e+00
                                                            0.000000e+00
   CSI056
                  0 0.000000e+00
                                         0
                                                  0
                                                            0 0.00000e+00
   CSI066
                   0.000000e+00
                                         0
                                                  0
##
                  0
                                                            0 0.000000e+00
                                     Otu01036
##
          Otu01034
                       Otu01035
                                                  Otu01037 Otu01038
                  0 0.00000000 0.000000e+00 0.000000e+00
##
   CSI002
                                                                   0
  CSI013
                  0 0.00000000 0.000000e+00 0.000000e+00
                                                                   0
##
   CSI023
                  0 0.00000000 0.000000e+00 0.000000e+00
                                                                   0
   CSI034
                  0 0.000000000 5.684725e-05 1.894908e-05
                                                                   0
   CSI045
                  0 0.000000000 1.632546e-04 0.000000e+00
                                                                   0
                  0 0.004859029 3.918572e-04 0.000000e+00
                                                                   0
   CSI056
##
                  0 0.000000000 7.667389e-05 0.000000e+00
                                                                   0
##
   CSI066
              Otu01039 Otu01040
                                     Otu01041
##
                                                   Ot:1101042
                                                                 Ot:1101043
   CSI002 0.000000e+00
                               0 2.043291e-04 0.000000e+00 5.448775e-05
  CSI013 3.195807e-04
                               0 9.587421e-04 0.000000e+00 2.237065e-04
   CSI023 0.000000e+00
                               0 8.164098e-05 0.000000e+00 0.000000e+00
                               0 9.285051e-04 1.894908e-05 1.136945e-04
   CSI034 3.789817e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
   CSI056 0.000000e+00
                               0 5.877858e-05 0.000000e+00 1.155979e-03
   CSI066 0.000000e+00
                               0 3.833694e-05 0.000000e+00 3.450325e-04
##
          Otu01044 Otu01045
                                 Otu01046 Otu01047
                                                        Otu01048 Otu01049
## CSI002
                  0
                           0 0.00000e+00
                                                  0 8.309381e-04
                                                                          0
## CSI013
                  0
                                                                          0
                           0 0.00000e+00
                                                  0 2.300981e-03
## CSI023
                  0
                           0 0.00000e+00
                                                  0 0.00000e+00
                                                                          0
                  0
                                                                          0
## CSI034
                           0 0.000000e+00
                                                  0 3.789817e-04
                             0.000000e+00
##
  CSI045
                  0
                           0
                                                  0.0.000000e+00
                                                                          0
##
   CSI056
                  0
                           0
                             0.000000e+00
                                                  0 0.00000e+00
                                                                          0
                           0 6.325596e-04
##
                  0
                                                  0 1.916847e-05
                                                                          0
##
          Otu01050 Otu01051 Otu01052 Otu01053 Otu01054
                                                              Otu01055
## CSI002
                  0
                           0
                                     0
                                              0
                                                       0 0.000000e+00
## CSI013
                  0
                           0
                                     0
                                              0
                                                       0 3.195807e-05
```

0

0

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Λ

0

```
## CSI023
                 0
                           0
                                                       0 0.00000e+00
## CST034
                 0
                           0
                                    0
                                              0
                                                       0 0.00000e+00
  CSI045
                 0
                           0
                                    0
                                              0
                                                       0 0.00000e+00
  CSI056
                 0
                           0
                                    0
                                              0
                                                       0 2.155215e-04
##
##
   CST066
                 0
                           0
                                    0
                                                       0.0.000000e+00
              Otu01056 Otu01057 Otu01058
##
                                              Otu01059 Otu01060
                                                                      Otu01061
  CSI002 0.0000000000
                               0
                                        0 0.00000e+00
                                                               0 2.724387e-05
## CSI013 0.0000000000
                               0
                                        0 6.391614e-05
                                                               0.0.000000e+00
  CSI023 0.0000000000
                               0
                                        0 6.123074e-05
                                                               0 0.000000e+00
  CSI034 0.0000000000
                               0
                                        0 1.326436e-04
                                                               0 0.000000e+00
  CSI045 0.0003591602
                               0
                                        0 0.00000e+00
                                                               0 3.265093e-05
                               0
   CSI056 0.0001959286
                                        0 3.134858e-04
                                                               0 5.877858e-05
##
   CSI066 0.0000000000
                               0
                                        0 0.000000e+00
                                                               0 1.916847e-05
                            Otu01063 Otu01064 Otu01065 Otu01066
##
              Otu01062
                                                                      Otu01067
  CSI002 1.362194e-05 0.000000e+00
                                            0
                                                      0
                                                               0 1 362194e-04
   CSI013 3.195807e-05 0.000000e+00
                                            0
                                                      0
                                                               0 1.597904e-04
   CSI023 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 0.00000e+00
   CSI034 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0 1.193792e-03
  CSI045 1.632546e-04 1.632546e-04
                                            0
                                                      0
                                                               0 0.00000e+00
  CSI056 6.269715e-04 9.796430e-05
                                            0
                                                      0
                                                               0 0.00000e+00
##
  CSI066 0.000000e+00 1.341793e-04
                                            0
                                                      Λ
                                                               0 0.000000e+00
              Otu01068 Otu01069
##
                                     Otu01070
                                                   Otii01071 Otii01072
## CSI002 1.225974e-04
                               0 5.448775e-05 1.035267e-03
                                                                    0
  CSI013 1.917484e-04
                               0 6.391614e-05 0.000000e+00
                                                                    0
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
  CSI034 2.084399e-04
                               0 1.136945e-04 3.031853e-04
                                                                    0
  CSI045 0.000000e+00
                               0 0.000000e+00 8.815751e-04
                                                                    0
                                                                    0
   CSI056 3.526715e-04
                               0 1.959286e-05 9.796430e-04
   CSI066 0.000000e+00
                               0 1.150108e-04 2.108532e-04
                                                                    0
##
##
              Otu01073
                            Otu01074
                                         Otu01075
                                                       Otu01076 Otu01077
##
   CSI002 0.000000e+00 0.000000e+00 2.451949e-04 0.000000e+00
                                                                        0
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI023 0.000000e+00 6.123074e-05 2.041025e-05 0.000000e+00
                                                                        0
  CSI034 0.000000e+00 0.000000e+00 1.894908e-04 0.000000e+00
                                                                        0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 2.938584e-04
                                                                        0
  CSI056 0.000000e+00 0.000000e+00 0.000000e+00 7.837144e-05
                                                                        0
   CSI066 0.000000e+00 1.725162e-04 0.000000e+00 3.450325e-04
                                                                        0
##
              Otu01078 Otu01079
                                     Otu01080
                                                                Otu01082
                                                   Ot:1101081
  CSI002 0.000000e+00
                               0 6.538530e-04 0.000000e+00 2.315729e-04
  CSI013 9.587421e-05
                               0 1.406155e-03 0.000000e+00 4.474130e-04
                               0 8.164098e-05 0.000000e+00 4.082049e-05
  CSI023 0.000000e+00
  CSI034 5.684725e-05
                               0 8.148106e-04 0.000000e+00 7.769124e-04
  CSI045 5.224149e-04
                               0 6.530186e-05 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00
                               0 3.918572e-05 2.390329e-03 0.000000e+00
  CSI066 0.000000e+00
                               0 1.341793e-04 0.000000e+00 1.916847e-05
                            Otu01084
##
                                         Otu01085 Otu01086 Otu01087 Otu01088
              Otu01083
   CSI002 0.000000e+00 1.362194e-05 3.677923e-04
                                                          0
                                                                    0
                                                                             0
                                                                    0
   CSI013 3.195807e-05 0.000000e+00 4.474130e-04
                                                          0
                                                                             0
  CSI023 0.000000e+00 0.000000e+00 2.041025e-05
                                                          0
                                                                    0
                                                                             0
   CSI034 0.000000e+00 1.705418e-04 4.547780e-04
                                                          0
                                                                    0
                                                                             0
   CSI045 0.000000e+00 3.265093e-05 3.265093e-05
                                                                    0
                                                          0
                                                                             0
  CSI056 1.371500e-04 7.837144e-05 1.175572e-04
                                                                    0
                                                                             0
##
  CSI066 1.725162e-04 1.916847e-05 3.833694e-05
                                                          0
                                                                    0
                                                                             0
##
          Otu01089 Otu01090 Otu01091 Otu01092 Otu01093 Otu01094
                                                                       Otu01095
```

```
## CSI002
                  0
                           0
                                     0
                                                                  0 0.00000e+00
## CSI013
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 3.195807e-05
  CSI023
                                                                  0 0.000000e+00
                  0
                           0
                                     0
                                              0
                                                        0
  CSI034
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 5.684725e-05
##
##
   CSI045
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.000000e+00
                           0
                                              0
                                                        0
##
  CSI056
                  0
                                     0
                                                                  0 0.000000e+00
                           0
                                                        0
##
   CSI066
                  0
                                     0
                                              0
                                                                  0 0.00000e+00
                   Otu01097
                                           Otu01099 Otu01100
##
          Otu01096
                             Otu01098
                                                                   Ot:1101101
## CSI002
                  0
                           0
                                     0 5.448775e-05
                                                            0 0.000000e+00
                           0
##
  CSI013
                  0
                                       0.000000e+00
                                                            0 0.00000e+00
  CSI023
                  0
                           0
                                       2.694152e-03
                                                            0 0.000000e+00
                  0
                           0
##
  CSI034
                                       0.000000e+00
                                                              1.894908e-05
##
   CSI045
                  0
                           0
                                     0 0.000000e+00
                                                            0 6.530186e-05
                           0
##
   CSI056
                  0
                                     0 0.00000e+00
                                                            0 1.371500e-04
   CSI066
                  0
                           0
                                     0 0.000000e+00
                                                            0 7.667389e-05
##
##
          Otu01102
                        Otu01103 Otu01104
                                               Otu01105 Otu01106 Otu01107
  CSI002
                                                                 0
##
                  0 2.860607e-04
                                         0 0.00000e+00
                                                                          0
   CSI013
                  0 3.195807e-04
                                         0 0.00000e+00
                                                                 0
                                                                          0
  CSI023
                                                                 0
                                                                          0
##
                  0 3.265639e-04
                                         0 0.00000e+00
   CSI034
                    1.042200e-03
                                         0 1.894908e-05
                                                                 0
                                                                          0
##
   CST045
                   0.000000e+00
                                         0 1.371339e-03
                                                                 0
                                                                          0
   CSI056
                    0.000000e+00
                                                                 0
                                                                          0
                                         0 3.918572e-05
                                                                 0
##
  CSI066
                  0 0.000000e+00
                                         0 2.875271e-04
                                                                          0
##
          Otu01108
                    Otu01109
                                  Otu01110
                                               Otu01111
                                                             Otu01112
## CSI002
                  0
                           0 0.000000e+00 0.000000e+00 2.724387e-05
  CSI013
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
##
   CSI034
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                           0 0.000000e+00 3.265093e-04 2.285565e-04
##
   CSI045
  CSI056
                  0
                           0 0.000000e+00 1.077607e-03 4.310429e-04
##
   CSI066
                  0
                           0 1.916847e-05 2.875271e-04 2.491901e-04
##
              Otu01113 Otu01114 Otu01115
                                               Otu01116 Otu01117 Otu01118
   CSI002 1.362194e-05
                               0
                                         0 1.362194e-05
                                                                 0
                                                                          0
   CSI013 9.587421e-05
                               0
                                                                 0
                                                                          0
                                         0 1.597904e-04
   CSI023 2.041025e-05
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                               0
                                                                 0
                                                                          0
   CSI034 2.842363e-04
                                         0 5.684725e-04
   CSI045 6.530186e-05
                               0
                                         0 2.612074e-04
                                                                 0
                                                                          0
   CSI056 7.837144e-05
                               0
                                         0 1.567429e-04
                                                                 0
                                                                          0
##
   CSI066 1.916847e-04
                                         0 4.217064e-04
                                                                 0
##
                               0
                                                                          0
##
                            Otu01120
              Otu01119
                                          Otu01121 Otu01122
                                                                  Ot:1101123
   CSI002 0.000000e+00 5.448775e-05 2.451949e-04
                                                           0 0.000000e+00
   CSI013 0.000000e+00 6.391614e-05 9.587421e-04
                                                           0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
   CSI034 0.000000e+00 1.515927e-04 8.148106e-04
                                                           0 0.00000e+00
   CSI045 9.795279e-05 0.000000e+00 1.632546e-04
                                                           0 3.265093e-05
   CSI056 2.155215e-04 5.877858e-05 1.763357e-04
                                                           0 2.743000e-04
##
   CSI066 2.300217e-04 2.491901e-04 7.667389e-05
                                                           0 3.833694e-05
##
              Otu01124 Otu01125
                                      Otu01126
                                                    Otu01127
                                                                  Otu01128
  CSI002 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
## CSI034 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI045 3.265093e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI056 9.796430e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
```

```
## CSI066 7.667389e-05
                               0 1.916847e-05 0.000000e+00 3.833694e-05
##
          Ot:1101129
                       Otu01130 Otu01131
                                              Otu01132 Otu01133
                                                                     Ot:1101134
                 0 0.000000e+00
## CSI002
                                        0 0.000000e+00
                                                               0 1.362194e-05
## CSI013
                 0 0.000000e+00
                                        0 0.000000e+00
                                                               0 0.000000e+00
## CSI023
                 0 0.000000e+00
                                        0 0.000000e+00
                                                               0 0.000000e+00
                 0 0.000000e+00
## CSI034
                                        0 0.00000e+00
                                                               0 0.000000e+00
## CSI045
                 0 2.285565e-04
                                        0 0.000000e+00
                                                               0 1.198289e-02
## CSI056
                 0 0.000000e+00
                                        0 0.00000e+00
                                                               0 0.000000e+00
##
  CSI066
                 0 3.833694e-05
                                        0 0.000000e+00
                                                               0 1.916847e-05
##
          Otu01135 Otu01136 Otu01137
                                          Otu01138 Otu01139
                                                                 Otu01140
## CSI002
                 0
                           0
                                    0 9.535356e-05
                                                           0 0.000000e+00
## CSI013
                           0
                                                           0 6.391614e-05
                 0
                                    0 6.391614e-04
## CSI023
                 0
                           0
                                    0 0.000000e+00
                                                           0 0.000000e+00
                           0
                                    0 3.410835e-04
                                                           0 0.00000e+00
## CSI034
                 0
## CSI045
                 0
                           0
                                    0 5.550658e-04
                                                           0.0.000000e+00
## CSI056
                 0
                           0
                                    0 0.00000e+00
                                                           0 7.837144e-05
                 0
                           0
##
  CSI066
                                    0 0.00000e+00
                                                           0 0.00000e+00
##
              Otu01141 Otu01142
                                     Otu01143
                                                  Otu01144 Otu01145 Otu01146
## CSI002 0.000000e+00
                               0 4.086581e-04 0.000000e+00
                                                                             0
                                                                   0
## CSI013 0.000000e+00
                               0 6.391614e-05 0.000000e+00
                                                                   0
                                                                             0
  CSI023 0.000000e+00
                               0 2.041025e-05 0.000000e+00
                                                                   0
                                                                             0
                               0 2.463381e-04 5.684725e-05
## CSI034 0.000000e+00
                                                                   0
## CSI045 0.000000e+00
                               0 6.530186e-05 0.000000e+00
                                                                   0
                                                                             0
  CSI056 2.351143e-04
                               0 1.959286e-05 0.000000e+00
                                                                   0
                                                                             0
  CSI066 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
              Otu01147
                            Otu01148 Otu01149
                                                  Otu01150
                                                                Otu01151
## CSI002 0.000000000 0.0001907071
                                            0 0.000000e+00 0.000000e+00
  CSI013 0.0000000000 0.0001917484
                                            0 0.000000e+00 0.000000e+00
  CSI023 0.0000000000 0.0000000000
                                            0 0.000000e+00 0.000000e+00
  CSI034 0.0000000000 0.0003979308
                                            0 0.000000e+00 0.000000e+00
   CSI045 0.0001632546 0.0000000000
                                            0 9.795279e-05 0.000000e+00
   CSI056 0.0006661573 0.0000000000
                                            0 9.796430e-05 3.918572e-05
   CSI066 0.0000000000 0.0000000000
                                            0 1.725162e-04 0.000000e+00
##
              Otu01152
                            Otu01153 Otu01154 Otu01155 Otu01156 Otu01157
  CSI002 9.535356e-05 1.362194e-04
                                            0
                                                      0
                                                               0
                                                                        0
  CSI013 1.597904e-04 1.597904e-04
                                            0
                                                      0
                                                               0
                                                                        0
  CSI023 0.000000e+00 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                         0
  CSI034 5.305743e-04 0.000000e+00
                                            0
                                                               0
                                                                         0
                                                      0
   CSI045 5.877167e-04 0.000000e+00
                                            0
                                                      0
                                                               0
                                                                         0
  CSI056 3.918572e-05 1.959286e-05
                                            Λ
                                                      Λ
                                                               0
                                                                         0
   CSI066 1.073434e-03 0.000000e+00
                                            0
                                         Otu01160 Otu01161 Otu01162 Otu01163
##
              0t.1101158
                            0t.1101159
  CSI002 5.448775e-05 1.362194e-05 0.000000e+00
                                                          0
                                                                   0
                                                                             0
                                                                   0
  CSI013 2.237065e-04 0.000000e+00 0.000000e+00
                                                          0
                                                                             0
   CSI023 4.082049e-05 0.000000e+00 2.449230e-04
                                                                   0
                                                                             0
  CSI034 3.031853e-04 3.979308e-04 0.000000e+00
                                                          0
                                                                   0
                                                                             0
   CSI045 0.000000e+00 5.224149e-04 3.265093e-05
                                                          0
                                                                   0
                                                                             0
                                                                   0
   CSI056 0.000000e+00 1.763357e-04 3.918572e-05
                                                          0
                                                                             0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
                                                                             0
##
              Otu01164 Otu01165
                                     Otu01166
                                                  Otu01167 Otu01168 Otu01169
  CSI002 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
## CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                               0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                                                                   0
                                                                             0
## CSI034 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
```

```
## CSI045 1.632546e-04
                               0 3.265093e-05 0.000000e+00
                                                                             0
  CSI056 7.837144e-05
                               0 5.877858e-05 4.094908e-03
                                                                    0
                                                                             0
                               0 9.009182e-04 7.667389e-05
  CSI066 7.667389e-05
                                                                             0
##
          Otu01170
                       Otu01171 Otu01172
                                              Otu01173
                                                            Ot:1101174
##
  CST002
                 0 0.000000e+00
                                        0 0.000000e+00 1.362194e-04
                 0 0.000000e+00
##
  CSI013
                                        0 0.000000e+00 1.150491e-03
  CSI023
                 0 0.00000e+00
                                        0 2.041025e-05 4.082049e-05
## CSI034
                 0.000000e+00
                                        0 2.273890e-04 4.358289e-04
  CSI045
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
  CSI056
                 0 3.918572e-05
                                        0 1.959286e-05 0.000000e+00
  CSI066
                 0 0.00000e+00
                                        0 0.000000e+00 0.000000e+00
##
              Otu01175
                            Otu01176
                                         Otu01177
                                                       Otu01178
                                                                    Otu01179
##
  CSI002 2.315729e-04 0.000000e+00 1.907071e-04 0.0000000000 1.225974e-04
   CSI013 2.556646e-04 0.000000e+00 6.391614e-05 0.0000000000 0.000000e+00
  CSI023 1.020512e-04 0.000000e+00 0.000000e+00 0.0000000000 0.000000e+00
   CSI034 7.200652e-04 0.000000e+00 7.579634e-05 0.0001705418 1.326436e-04
   CSI045 0.000000e+00 0.000000e+00 6.530186e-05 0.000000000 9.795279e-05
   CSI056 0.000000e+00 0.000000e+00 1.430279e-03 0.0000000000 5.877858e-05
  CSI066 0.000000e+00 0.000000e+00 1.150108e-04 0.0000000000 1.916847e-05
##
##
              Otu01180
                            Otu01181 Otu01182 Otu01183
                                                            Otu01184 Otu01185
##
  CSI002 2.179510e-04 0.000000e+00
                                            Λ
                                                      0 2.315729e-04
                                                                             0
  CSI013 2.237065e-04 0.000000e+00
                                            0
                                                                             0
                                                      0 1.278323e-04
  CSI023 2.041025e-05 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
  CSI034 4.737271e-04 0.000000e+00
                                            0
                                                      0 1.800163e-03
                                                                             0
                                            Λ
  CSI045 0.000000e+00 3.265093e-05
                                                      0 6.530186e-05
                                                                             0
  CSI056 1.959286e-05 1.567429e-04
                                            Λ
                                                      0 0.000000e+00
                                                                             0
  CSI066 0.000000e+00 1.916847e-05
                                            0
                                                      0 0.00000e+00
                                                                             Λ
##
          Otu01186 Otu01187 Otu01188
                                          Otu01189 Otu01190 Otu01191 Otu01192
## CSI002
                 0
                           0
                                    0 5.448775e-05
                                                           0
                                                                    0
                                                                              0
## CSI013
                 0
                           0
                                    0 1.278323e-04
                                                           0
                                                                    0
                                                                              0
## CSI023
                 0
                           0
                                    0 2.041025e-05
                                                           0
                                                                    0
                                                                              0
## CST034
                 0
                           0
                                    0 1.572774e-03
                                                           0
                                                                    0
                                                                              0
## CSI045
                 0
                           0
                                    0 3.265093e-05
                                                           0
                                                                    0
                                                                              0
                                                           0
                                                                              0
## CSI056
                 0
                           0
                                    0 9.796430e-04
                                                                    0
                 0
                           0
                                    0 3.833694e-04
                                                           0
                                                                              0
##
   CSI066
              Otu01193 Otu01194 Otu01195 Otu01196
##
                                                        Otu01197
                                                                     Ot:1101198
## CSI002 5.584994e-04
                               0
                                        0
                                                  0 0.000000e+00 2.724387e-05
## CSI013 9.587421e-05
                                        0
                                                  0 6.391614e-05 2.876226e-04
                               0
  CSI023 2.041025e-05
                                        0
                                                  0 0.000000e+00 0.000000e+00
                               0
## CSI034 3.221344e-04
                                        Λ
                               0
                                                  0 3.789817e-05 5.116253e-04
                                        0
  CSI045 0.000000e+00
                                                  0 9.795279e-05 0.000000e+00
## CSI056 0.000000e+00
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
  CSI066 1.916847e-05
                               Ω
                                                  0 0.000000e+00 0.000000e+00
          Otu01199 Otu01200 Otu01201
##
                                          Otu01202 Otu01203 Otu01204
## CSI002
                 0
                           0
                                    0 0.00000e+00
                                                           0
                                                                    0
## CSI013
                                                           0
                                                                    0
                 0
                           0
                                    0 3.195807e-05
## CSI023
                 0
                           0
                                    0 0.00000e+00
                                                           0
                                                                    0
                 0
                           0
## CSI034
                                    0 0.00000e+00
                                                           0
                                                                    0
                                    0 0.000000e+00
## CSI045
                 0
                           0
                                                           0
                                                                    0
## CSI056
                 0
                           0
                                    0 0.000000e+00
                                                           0
                                                                    0
                                                           0
##
  CST066
                 0
                           0
                                    0 0.00000e+00
                                                                    0
##
              Otu01205
                            Otu01206
                                         Otu01207 Otu01208
                                                                Otu01209
## CSI002 0.000000e+00 0.000000e+00 1.362194e-05
                                                          0.0.000000e+00
## CSI013 0.000000e+00 0.000000e+00 6.391614e-05
                                                          0 0.000000e+00
```

```
## CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
  CSI034 0.000000e+00 5.684725e-05 0.000000e+00
                                                          0 0.000000e+00
   CSI045 0.000000e+00 5.224149e-04 0.000000e+00
                                                          0 1.632546e-04
  CSI056 0.000000e+00 3.526715e-04 0.000000e+00
                                                          0 1.175572e-04
##
   CSI066 3.833694e-05 7.667389e-04 0.000000e+00
                                                          0 3.833694e-05
          Otu01210
                       Otu01211 Otu01212
##
                                              Otu01213 Otu01214
                                                                     Otu01215
  CSI002
                 0 0.000000000
                                        0 1.089755e-04
                                                               0 4.086581e-05
                 0 0.000000000
## CSI013
                                        0 6.391614e-05
                                                               0 0.000000e+00
  CSI023
                 0 0.000000000
                                        0 1.020512e-04
                                                               0 0.00000e+00
  CSI034
                 0 0.000000000
                                        0 0.000000e+00
                                                               0 3.600326e-04
   CSI045
                 0 0.0009142260
                                        0 0.00000e+00
                                                               0 1.959056e-04
##
   CSI056
                 0 0.0002938929
                                        0 1.959286e-05
                                                               0 1.371500e-04
##
   CSI066
                 0.000000000
                                        0 0.000000e+00
                                                               0 9.584236e-05
##
              Otu01216
                            Otu01217 Otu01218 Otu01219
                                                            Otu01220
  CSI002 0.000000e+00 6.129872e-04
                                            0
                                                      0 0.000000e+00
##
   CSI013 0.000000e+00 5.432872e-04
                                            0
                                                      0 0.00000e+00
   CSI023 0.000000e+00 1.632820e-04
                                            0
                                                      0 0.00000e+00
   CSI034 0.000000e+00 7.011161e-04
                                            0
                                                      0 0.00000e+00
  CSI045 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.000000e+00
  CSI056 0.000000e+00 1.959286e-05
                                            0
                                                      0 1.567429e-04
##
  CSI066 4.408748e-03 0.000000e+00
                                            0
                                                      0 5.750542e-05
              Otu01221 Otu01222 Otu01223 Otu01224
##
                                                        Ot:1101225
                                                                     Ot:1101226
## CSI002 2.179510e-04
                                                  0 0.000000e+00 0.000000e+00
                               0
                                        0
                                        0
  CSI013 7.030776e-04
                               0
                                                  0 0.000000e+00 3.195807e-05
  CSI023 8.164098e-05
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
  CSI034 2.652872e-04
                               0
                                        0
                                                   0.000000e+00 1.894908e-05
  CSI045 0.000000e+00
                               0
                                        0
                                                  0 9.795279e-05 1.926405e-03
   CSI056 0.000000e+00
                               0
                                        0
                                                  0 1.567429e-04 0.000000e+00
                                                  0 2.683586e-04 3.642010e-04
   CSI066 0.000000e+00
                               0
                                        0
##
##
              Otu01227
                            Otu01228 Otu01229 Otu01230
                                                            Otu01231 Otu01232
##
   CSI002 0.0001907071 0.000000e+00
                                            0
                                                      0 2.724387e-05
                                                                             0
   CSI013 0.0001597904 0.000000e+00
                                            0
                                                      0 9.587421e-05
                                                                             0
   CSI023 0.0000000000 0.000000e+00
                                            0
                                                      0 4.082049e-05
                                                                             0
  CSI034 0.0005305743 0.000000e+00
                                            0
                                                      0 3.789817e-05
                                                                             0
   CSI045 0.0000000000 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
  CSI056 0.0000000000 0.000000e+00
                                            0
##
                                                      0 4.702286e-04
                                                                             0
   CSI066 0.0000000000 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
##
              Otu01233 Otu01234 Otu01235
                                              Otu01236 Otu01237
                                                                     Otu01238
  CSI002 0.000000e+00
                               0
                                        0 1.362194e-05
                                                               0.000000e+00
  CSI013 0.000000e+00
##
                               0
                                        0 1.917484e-04
                                                               0 0.00000e+00
  CSI023 0.000000e+00
                               0
                                        0 0.00000e+00
                                                               0 0.00000e+00
  CSI034 0.000000e+00
                               0
                                        0 0.00000e+00
                                                               0 1.894908e-05
  CSI045 3.918111e-04
                               0
                                        0 0.00000e+00
                                                               0 0.00000e+00
  CSI056 4.114501e-04
                               0
                                        0 5.877858e-05
                                                               0 0.00000e+00
  CSI066 1.916847e-04
                                        0 5.750542e-05
                                                               0 0.00000e+00
          Otu01239 Otu01240
                                 Otu01241 Otu01242
                                                        Otu01243 Otu01244
##
## CSI002
                 0
                           0 9.535356e-05
                                                  0 0.00000e+00
                                                                         0
                                                                         0
##
  CSI013
                 0
                           0 9.587421e-05
                                                  0 0.00000e+00
  CSI023
                 0
                           0 2.041025e-05
                                                  0 0.000000e+00
                                                                         0
  CSI034
                 0
                             2.084399e-04
                                                  0 0.00000e+00
                                                                         0
##
                 0
                                                                         0
##
  CSI045
                           0 0.00000e+00
                                                  0 0.00000e+00
## CSI056
                 0
                           0 0.00000e+00
                                                  0 0.00000e+00
                                                                         0
## CSI066
                 0
                           0 1.916847e-05
                                                  0 9.584236e-05
                                                                         0
##
              Otu01245 Otu01246 Otu01247
                                              Otu01248 Otu01249 Otu01250
```

```
## CSI002 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
  CSI013 0.000000e+00
                               0
                                                                 0
                                         0 0.00000e+00
                                                                          0
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI034 7.579634e-05
                               0
                                         0 1.894908e-05
                                                                 0
                                                                          0
   CSI045 3.265093e-05
                               0
                                         0 0.000000e+00
                                                                 0
                                                                          0
   CSI056 3.722643e-04
                               0
                                         0 1.959286e-05
                                                                 0
                                                                          0
##
   CSI066 3.833694e-04
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                      Otu01252 Otu01253 Otu01254
##
          Otu01251
                                                       Otu01255
                                                                     Otu01256
## CSI002
                  0 0.00000000
                                       0
                                                 0 5.448775e-05 0.000000e+00
                                       0
##
   CSI013
                  0.00000000
                                                 0 9.587421e-05 6.391614e-05
  CSI023
                  0 0.00000000
                                       0
                                                 0 2.041025e-05 0.000000e+00
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
  CSI034
                  0 0.00000000
##
   CSI045
                  0.00000000
                                       0
                                                 0 0.000000e+00 6.530186e-05
                  0.00000000
                                       0
##
   CSI056
                                                 0 1.763357e-04 1.371500e-03
   CSI066
                  0.00000000
                                       0
                                                 0 3.833694e-05 1.150108e-04
##
##
          Otu01257
                        Otu01258 Otu01259
                                               Otu01260
                                                             Otu01261
  CSI002
                                         0 1.362194e-04 0.000000e+00
##
                  0 0.00000e+00
   CSI013
                  0 0.000000e+00
                                         0 1.597904e-04 0.000000e+00
  CSI023
                                         0 0.000000e+00 0.000000e+00
##
                  0 2.041025e-05
##
   CSI034
                  0 0.000000e+00
                                         0 2.842363e-04 0.000000e+00
##
   CSI045
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
   CSI056
                  0 0.000000e+00
                                         0 1.959286e-05 1.959286e-05
  CSI066
                                         0 7.667389e-05 0.000000e+00
##
                  0 0.000000e+00
                            Otu01263 Otu01264 Otu01265
##
              Ot:1101262
                                                             Otu01266 Otu01267
##
  CSI002 0.000000e+00 4.086581e-05
                                             0
                                                       0 1.362194e-05
                                                                              0
   CSI013 3.195807e-05 1.917484e-04
                                             0
                                                       0 0.00000e+00
                                                                              0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                              0
                                             0
   CSI034 3.789817e-05 2.273890e-04
                                                       0 1.894908e-05
                                                                              0
                                             0
   CSI045 0.000000e+00 3.265093e-05
                                                       0 1.632546e-04
                                                                              0
   CSI056 3.918572e-05 1.959286e-05
                                             0
                                                       0 2.155215e-04
                                                                              0
##
   CSI066 7.667389e-05 1.725162e-04
                                             0
                                                       0 9.584236e-05
                                                                              0
##
          Otu01268 Otu01269 Otu01270
                                           Otu01271 Otu01272
                                                                   0 \pm 1101273
##
  CSI002
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.00000e+00
  CSI013
                           0
                                     0 0.000000e+00
##
                  0
                                                            0 0.00000e+00
   CSI023
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.00000e+00
                  0
                           0
                                     0 0.000000e+00
##
  CST034
                                                            0.000000e+00
##
  CSI045
                  0
                           0
                                     0 9.795279e-04
                                                            0 1.959056e-04
## CSI056
                  0
                           0
                                     0 1.959286e-05
                                                            0 3.918572e-05
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
##
   CST066
##
                                      Otu01276 Otu01277 Otu01278 Otu01279
          Otu01274
                        Ot:101275
  CSI002
                  0 0.0000000000 0.000000e+00
                                                       0
                                                                 0
                                                                          0
  CSI013
                  0 0.000000000 0.000000e+00
                                                       0
                                                                 0
                                                                          0
##
                                                                 0
   CSI023
                  0 0.000000000 0.000000e+00
                                                       0
                                                                          0
                                                       0
                                                                 0
   CSI034
                  0 0.000000000 0.000000e+00
                                                                          0
##
                                                                 0
   CSI045
                  0 0.0000000000 6.530186e-05
                                                       0
                                                                          0
                                                                 0
  CSI056
                  0 0.0008620859 0.000000e+00
                                                                          0
##
                                                       0
##
   CSI066
                  0 0.0001916847 0.000000e+00
                                                       0
                                                                          0
              Otu01280 Otu01281 Otu01282 Otu01283 Otu01284
##
                                                                   Otu01285
  CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 4.086581e-05
   CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                              3.195807e-05
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
   CSI023 0.000000e+00
## CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 9.474542e-05
## CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
## CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 1.763357e-04
```

```
## CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
##
          Otu01286 Otu01287 Otu01288 Otu01289 Otu01290
                                                              Otu01291 Otu01292
## CSI002
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
## CSI013
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
                  0
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                                0
                           0
                                                                                O
## CSI034
                  0
                                     0
                                              0
                                                        0 0.00000e+00
## CSI045
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                                0
## CSI056
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                                0
##
  CSI066
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                                O
##
          Otu01293 Otu01294
                             Otu01295 Otu01296
                                                     Otu01297 Otu01298 Otu01299
## CSI002
                  0
                           0
                                     0
                                              0 1.362194e-05
                                                                      0
                                                                                0
## CSI013
                  0
                           0
                                     0
                                                                      0
                                                                                0
                                              0 3.195807e-05
## CSI023
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                                0
## CSI034
                  0
                           0
                                     0
                                              0 2.084399e-04
                                                                      0
                                                                                0
  CSI045
                  0
                           0
                                     0
                                                                               0
##
                                              0 0.00000e+00
                                                                      0
## CSI056
                  0
                           0
                                     0
                                              0 1.077607e-03
                                                                      0
                                                                                0
                  0
                           0
                                     0
##
  CSI066
                                              0 0.00000e+00
                                                                      0
                                                                               0
          Otu01300 Otu01301
                                  Otu01302 Otu01303 Otu01304 Otu01305
##
## CSI002
                  0
                           0 0.000000000
                                                   0
                                                            0
                                                                      0
## CSI013
                  0
                           0
                             0.000000000
                                                   0
                                                            0
                                                                      0
##
  CSI023
                  0
                           0 0.000000000
                                                   0
                                                            0
                                                                      0
## CSI034
                  0
                                                   0
                                                            0
                           0 0.000000000
## CSI045
                  0
                           0 0.000000000
                                                   0
                                                            0
                                                                      0
##
  CSI056
                  0
                             0.000000000
                                                   0
                                                            0
##
  CSI066
                  0
                           0.0002683586
                                                   0
                                                            0
                                                                      0
##
              Otu01306 Otu01307 Otu01308 Otu01309 Otu01310
                                                                   Otu01311
  CSI002 0.0000000000
                                                   0
                                                            0 0.00000e+00
##
                               0
                                         0
   CSI013 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI023 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI034 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI045 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI056 0.0000000000
                               0
                                         0
                                                   0
                                                            0 1.959286e-05
   CSI066 0.0000000000
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
##
          0tu01312
                        Otu01313 Otu01314
                                               Otu01315
                                                             Otu01316
   CSI002
                  0 0.000000000
                                         0 0.000000e+00 0.0000000000
##
  CSI013
                                         0 0.000000e+00 0.000000000
##
                  0 0.000000000
  CSI023
                  0 0.000000000
                                         0 0.000000e+00 0.0000000000
  CSI034
                                         0 0.000000e+00 0.0000000000
##
                  0 0.000000000
                                         0 0.000000e+00 0.0000000000
   CSI045
                  0 0.0006530186
##
  CSI056
                  0 0.000000000
                                         0 4.898215e-04 0.0000000000
   CST066
                  0 0.000000000
                                         0 4.792118e-04 0.0005175487
##
              Otu01317 Otu01318
                                      Ot:1101319
                                                    Otii01320 Otii01321
   CSI002 6.810968e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI013 3.834969e-04
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI034 6.253198e-04
                               0 3.789817e-05 0.000000e+00
                                                                     0
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI056 0.000000e+00
                               0 1.959286e-05 5.486001e-04
                                                                     0
##
   CSI066 0.000000e+00
                               0 0.000000e+00 5.750542e-05
                                                                     0
##
              Otu01322
                            Otu01323 Otu01324
                                                    Otu01325 Otu01326
                                                                       Otu01327
   CSI002 0.000000e+00 0.000000e+00
                                             0 2.724387e-05
                                                                     0
                                                                              0
  CSI013 0.000000e+00 0.000000e+00
                                             0 2.237065e-04
                                                                     0
                                                                              0
## CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                              0
## CSI034 0.000000e+00 0.000000e+00
                                             0 1.705418e-04
                                                                     0
                                                                              0
```

```
## CSI045 1.273386e-03 3.265093e-05
                                          0 0.00000e+00
                                                                          0
                                                                 0
  CSI056 3.918572e-05 0.000000e+00
                                                                 0
                                          0 0.000000e+00
                                                                          0
  CSI066 1.916847e-05 1.916847e-05
                                          0 9.584236e-05
                                                                 0
                                                                          0
##
          Otu01328
                      Otu01329 Otu01330
                                            Otu01331 Otu01332
                                                                   Otu01333
## CST002
                0 4.086581e-05
                                      0 4.631459e-04
                                                             0 0.000000e+00
## CSI013
                 0 2.237065e-04
                                      0 3.834969e-04
                                                             0 0.00000e+00
## CSI023
                 0 1.836922e-04
                                      0 0.000000e+00
                                                             0 0.000000e+00
## CSI034
                 0 0.000000e+00
                                      0 1.326436e-04
                                                            0 0.000000e+00
  CSI045
                 0 3.265093e-05
                                      0 0.000000e+00
                                                            0 1.632546e-04
  CSI056
                 0 5.877858e-05
                                      0 2.155215e-04
                                                            0 2.938929e-04
  CSI066
                 0 0.000000e+00
                                      0 9.584236e-05
                                                             0 1.916847e-05
##
          Otu01334 Otu01335
                               Otu01336
                                            Otu01337
                                                          Otu01338
##
  CSI002
                0
                         0 1.498413e-04 0.000000e+00 8.173162e-05
## CSI013
                 0
                          0 1.917484e-04 0.000000e+00 3.195807e-05
## CSI023
                          0 2.041025e-05 0.000000e+00 0.000000e+00
                0
## CSI034
                0
                          0 1.894908e-04 0.000000e+00 1.894908e-05
                 0
                          0 6.530186e-05 0.000000e+00 0.000000e+00
##
  CSI045
  CSI056
                 0
                          0 1.959286e-05 0.000000e+00 3.918572e-05
                          0 1.341793e-04 0.000000e+00 9.584236e-05
##
  CST066
                 0
##
              Otu01339
                          Otu01340
                                       Otu01341 Otu01342
                                                            Ot:1101343
  CSI002 0.000000e+00 8.854259e-04 0.000000e+00
                                                        0 2.588168e-04
  CSI013 0.000000e+00 0.000000e+00 9.587421e-05
                                                        0 4.154549e-04
  CSI023 0.000000e+00 4.082049e-05 0.000000e+00
                                                        0 4.082049e-05
  CSI034 0.000000e+00 1.894908e-04 9.474542e-05
                                                        0 1.231690e-03
  CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                        0 3.265093e-05
  CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                        0 1.175572e-04
  CSI066 0.000000e+00 0.000000e+00 1.916847e-05
                                                        0 0.000000e+00
##
          Otu01344 Otu01345
                               Otu01346
                                            Otu01347
                                                         Otu01348 Otu01349
## CSI002
                0
                          0 0.000000e+00 3.541704e-04 5.040117e-04
## CSI013
                 0
                          0 0.000000e+00 4.474130e-04 1.597904e-04
                                                                          0
## CSI023
                0
                          0 0.000000e+00 0.000000e+00 1.428717e-04
                                                                          0
## CST034
                0
                          0 1.894908e-05 4.168798e-04 2.652872e-04
                                                                          0
## CSI045
                 0
                          0 3.265093e-05 0.000000e+00 1.306037e-04
                                                                          0
                          0 1.391093e-03 0.000000e+00 0.000000e+00
## CSI056
                 0
                                                                          0
                          0 0.000000e+00 0.000000e+00 1.150108e-04
                                                                          0
##
   CSI066
                0
             Otu01350 Otu01351 Otu01352 Otu01353
                                                     Otu01354
##
                                                                   Ot:1101355
## CSI002 0.000000e+00
                              0
                                      0
                                               0 0.000000e+00 0.000000e+00
## CSI013 0.000000e+00
                              0
                                      0
                                               0 0.000000e+00 9.587421e-05
## CSI023 0.000000e+00
                                      0
                                               0 0.000000e+00 0.000000e+00
                              0
                                               0 0.000000e+00 5.684725e-05
                                      Λ
## CSI034 0.000000e+00
                              0
  CSI045 0.000000e+00
                              0
                                      0
                                                0 1.632546e-04 0.000000e+00
  CSI056 7.837144e-05
                                      0
                                               0 2.351143e-04 1.763357e-04
                              0
  CSI066 2.683586e-04
                              0
                                      0
                                                0 1.150108e-04 0.000000e+00
                           Otu01357 Otu01358
##
              Otu01356
                                                Otu01359
                                                              Otu01360
  CSI002 0.000000e+00 5.448775e-05
                                          0 0.0000000000 2.724387e-05
  CSI013 0.000000e+00 3.195807e-05
                                          0 0.000000000 3.195807e-05
  CSI023 0.000000e+00 0.000000e+00
                                          0 0.000000000 0.000000e+00
  CSI034 0.000000e+00 2.652872e-04
                                          0 0.000000000 1.136945e-04
  CSI045 2.612074e-04 2.285565e-04
                                          0 0.000000000 9.795279e-05
  CSI056 4.898215e-04 2.547072e-04
                                          0 0.000000000 5.486001e-04
  CSI066 9.584236e-05 1.341793e-04
                                          0 0.0000000000 2.300217e-04
##
##
          Otu01361
                      Otu01362
                                   Otu01363
                                                Otu01364 Otu01365
## CSI002
                0
## CSI013
                0
```

```
## CSI023
                 0
                 0 0.000000e+00 0.000000e+00 0.0001705418
  CST034
                                                                 0
  CSI045
                 0
                 0
  CST056
##
   CST066
                 0 1.916847e-05 0.000000e+00 0.0000000000
                                                                 0
                                                     Otu01369 Otu01370
##
              Otu01366
                           Ot:1101367
                                       Ot:1101368
  CSI002 0.000000e+00 6.810968e-05 5.584994e-04 6.810968e-05
                                                                     0
  CSI013 0.000000e+00 9.587421e-05 1.597904e-04 0.000000e+00
                                                                     0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
   CSI034 0.000000e+00 1.894908e-05 9.664033e-04 0.000000e+00
                                                                     Λ
   CSI045 0.000000e+00 1.306037e-04 3.265093e-05 3.265093e-05
   CSI056 0.000000e+00 9.796430e-05 0.000000e+00 0.000000e+00
                                                                     0
   CSI066 7.859073e-04 7.667389e-05 0.000000e+00 0.000000e+00
                                                                     0
              Otu01371 Otu01372 Otu01373
                                             Otu01374 Otu01375 Otu01376
##
  CSI002 2.724387e-05
                              0
                                                             0
                                                                      0
                                       0 1.362194e-05
   CSI013 0.000000e+00
                              0
                                       0 0.00000e+00
                                                             0
                                                                      0
  CSI023 0.000000e+00
                              0
                                      0 0.00000e+00
                                                             0
                                                                      0
   CSI034 0.000000e+00
                                       0 0.00000e+00
                                                             0
                                                                      0
                                                             0
                                                                      0
  CSI045 1.306037e-04
                              0
                                       0 3.265093e-05
  CSI056 3.330786e-04
                              0
                                       0 1.959286e-05
                                                             0
                                                                      0
##
  CSI066 0.000000e+00
                              0
                                       0 2.108532e-04
                                                             0
                                                                      0
##
              Otii01377 Otii01378
                                   Ot:1101379
                                                 Otu01380 Otu01381 Otu01382
## CSI002 1.362194e-05
                              0 4.767678e-04 2.724387e-05
                                                                 0
                                                                          0
  CSI013 0.000000e+00
                              0 2.876226e-04 2.237065e-04
                                                                 0
                                                                          0
  CSI023 0.000000e+00
                              0 0.000000e+00 2.041025e-05
                                                                 0
                                                                          0
  CSI034 7.579634e-05
                              0 4.168798e-04 0.000000e+00
                                                                 0
                                                                          0
                              0 6.530186e-05 3.918111e-04
                                                                 0
                                                                          0
  CSI045 0.000000e+00
   CSI056 5.877858e-05
                              0 7.837144e-05 5.877858e-05
                                                                 0
                                                                          0
                              0 5.750542e-05 3.066955e-04
##
   CSI066 3.258640e-04
                                                                 0
                                                                          0
##
              Otu01383
                           Otu01384 Otu01385 Otu01386
                                                          Otu01387
##
  CSI002 0.000000e+00 1.634632e-04
                                           0
                                                    0 1.362194e-04
   CSI013 6.391614e-05 9.587421e-05
                                           0
                                                    0.0.000000e+00
   CSI023 0.000000e+00 6.123074e-05
                                           0
                                                    0 0.00000e+00
  CSI034 0.000000e+00 7.579634e-05
                                           0
                                                    0 3.789817e-05
   CSI045 0.000000e+00 0.000000e+00
                                           0
                                                    0 0.00000e+00
  CSI056 0.000000e+00 3.467936e-03
                                           0
                                                    0 5.877858e-05
  CSI066 1.916847e-05 0.000000e+00
                                                    0 1.916847e-05
##
              Otu01388 Otu01389 Otu01390
                                             Otu01391 Otu01392 Otu01393
## CSI002 0.000000e+00
                              0
                                      0 1.089755e-04
                                                             0
                                                                      0
  CSI013 0.000000e+00
                                                             0
                                                                      0
                              0
                                       0 6.391614e-05
  CSI023 0.000000e+00
                              0
                                       0 2.041025e-05
                                                             0
                                                                      0
  CSI034 0.000000e+00
                              0
                                                             0
                                                                      0
                                       0 2.463381e-04
  CSI045 1.306037e-04
                              0
                                       0 0.000000e+00
                                                             \cap
                                                                      0
                                                             0
  CSI056 3.722643e-04
                              0
                                       0 0.00000e+00
                                                                      0
  CSI066 0.000000e+00
                              0
                                       0 0.00000e+00
                                                             0
##
              Otu01394 Otu01395 Otu01396 Otu01397
                                                      Otu01398 Otu01399
  CSI002 0.000000e+00
                              0
                                      0
                                                0 0.00000e+00
                                                                      0
   CSI013 0.000000e+00
                              0
                                       0
                                                0 0.00000e+00
                                                                      0
  CSI023 0.000000e+00
                              0
                                      0
                                                0.0.000000e+00
                                                                      0
  CSI034 0.000000e+00
                              0
                                      0
                                                0 0.00000e+00
                                                                      0
                              0
                                      0
                                                                      0
  CSI045 9.795279e-05
                                                0.0.000000e+00
## CSI056 1.959286e-05
                              0
                                       0
                                                0 2.743000e-04
                                                                      0
## CSI066 1.916847e-05
                              0
                                      0
                                                0 5.750542e-05
                                                                      0
##
          Otu01400
                       Otu01401 Otu01402 Otu01403
                                                     Otu01404
                                                                   Otu01405
```

```
## CSI002
                  0 0.000000000
                                         0
                                                  0 6.810968e-05 4.086581e-05
                                         0
                                                  0 0.000000e+00 1.917484e-04
##
  CST013
                  0 0.0002237065
                  0.0000000000
  CSI023
                                         0
                                                  0 0.000000e+00 0.000000e+00
  CSI034
                  0.000000000
                                         0
                                                    0.000000e+00 1.894908e-04
##
                                                    2.285565e-04 2.612074e-04
##
   CSI045
                   0.000000000
                                         0
                                                    0.000000e+00 3.918572e-05
##
  CSI056
                   0.000000000
                                         0
##
   CSI066
                  0 0.000000000
                                         0
                                                    5.750542e-05 7.667389e-05
                   Otu01407
                                 Otu01408 Otu01409
##
          Otu01406
                                                         Ot:1101410
                                                                       0t.1101411
## CSI002
                  Λ
                           0 4.903897e-04
                                                  0 0.000000e+00 0.000000e+00
##
  CSI013
                  0
                           0 1.150491e-03
                                                  0 0.000000e+00 0.000000e+00
  CSI023
                  0
                           0 8.164098e-05
                                                  0 0.000000e+00 0.000000e+00
                  0
                                                  0 3.789817e-05 1.136945e-04
##
  CSI034
                           0 3.221344e-04
   CSI045
                  0
                           0 0.000000e+00
                                                  0 2.612074e-04 0.000000e+00
##
##
  CSI056
                  0
                           0 0.000000e+00
                                                  0 5.877858e-05 1.959286e-05
  CSI066
                  0
                           0 0.000000e+00
                                                  0 1.916847e-05 0.000000e+00
##
##
          Otu01412
                        Otu01413 Otu01414 Otu01415
                                                    Otu01416 Otu01417
  CSI002
##
                  0 5.448775e-05
                                         0
                                                  0
                                                            0
                                                                     0
   CSI013
                  0 3.195807e-05
                                         0
                                                  0
                                                            0
                                                                     0
  CSI023
                  0 4.082049e-04
                                                  0
                                                            0
##
                                         0
                                                                     0
   CSI034
                  0 1.894908e-05
                                         0
                                                  0
                                                            0
                                                                     0
##
   CST045
                  0 2.285565e-04
                                         0
                                                  0
                                                            Λ
                                                                     0
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
   CST056
                                         0
                                                  0
                                                            0
##
  CSI066
                  0 3.833694e-05
                                                                     0
              Otu01418 Otu01419 Otu01420 Otu01421 Otu01422
##
                                                                  Otu01423
##
  CSI002 0.0002860607
                               0
                                         0
                                                  0
                                                            0.000000e+00
   CSI013 0.0003834969
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
   CSI023 0.0000000000
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
                                         0
   CSI034 0.0003600326
                               0
                                                  0
                                                            0 5.684725e-05
                                         0
                               0
                                                  0
   CSI045 0.0000000000
                                                            0 0.00000e+00
   CSI056 0.0004114501
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
##
   CSI066 0.0000000000
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
##
              Otu01424
                            Otu01425 Otu01426
                                                    0 \pm 1101427
                                                                 0tu01428
   CSI002 6.810968e-05 1.770852e-04
                                             0 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 9.587421e-05
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 1.894908e-05
   CSI034 0.000000e+00 5.684725e-05
   CSI045 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI066 5.750542e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
          Otu01429
                        Otu01430 Otu01431 Otu01432 Otu01433 Otu01434
##
  CSI002
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                     0
## CSI013
                  0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                     0
   CSI023
                  0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                     0
                                                  0
                                                            0
                                         0
                                                                     0
##
   CSI034
                  0 0.000000e+00
   CSI045
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                     0
  CSI056
                                         0
                                                  0
                                                            0
                                                                     0
##
                  0 0.00000e+00
##
   CSI066
                  0 1.188445e-03
                                         0
                                                  0
                                                            0
                                                                     0
##
              Otu01435
                            Otu01436
                                          Otu01437
                                                        Otu01438 Otu01439
   CSI002 0.000000e+00 2.724387e-05 2.724387e-05 2.724387e-05
                                                                         0
   CSI013 0.000000e+00 3.195807e-04 6.711195e-04 3.195807e-05
                                                                         0
   CSIO23 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
   CSI034 1.894908e-05 1.894908e-05 1.894908e-04 9.474542e-05
                                                                         0
  CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
## CSI056 0.000000e+00 0.000000e+00 0.000000e+00 8.229001e-04
                                                                         0
```

```
## CSI066 0.000000e+00 1.916847e-05 0.000000e+00 5.558857e-04
##
              Otu01440 Otu01441
                                    Otu01442 Otu01443 Otu01444
                                                                     Ot:1101445
## CSI002 0.000000e+00
                              0 1.362194e-05
                                                     0
                                                              0 0.000000000
                                                     0
  CSI013 0.000000e+00
                              0 3.195807e-05
                                                              0 0.000000000
## CSI023 0.000000e+00
                              0 1.020512e-04
                                                     0
                                                              0.0000000000
## CSI034 0.000000e+00
                              0 4.547780e-04
                                                     0
                                                              0 0.000000000
  CSI045 3.265093e-05
                              0 0.000000e+00
                                                     0
                                                              0 0.000000000
## CSI056 3.918572e-05
                              0 0.00000e+00
                                                     0
                                                              0.0000000000
  CSI066 1.916847e-05
                              0 0.000000e+00
                                                     0
                                                              0 0.000000000
##
          Otu01446
                       Otu01447
                                     Otu01448
                                                  Otu01449
                                                               Otu01450
## CSI002
                 0 0.000000e+00 0.000000e+00 1.362194e-05 0.0004903897
## CSI013
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.0003195807
## CSI023
                 0 2.041025e-05 0.000000e+00 0.000000e+00 0.0000000000
## CSI034
                 0.000000e+00 1.894908e-05 0.000000e+00 0.0010990469
                 0 0.000000e+00 0.000000e+00 6.530186e-05 0.0000000000
## CST045
## CSI056
                 0 0.000000e+00 0.000000e+00 3.918572e-05 0.0000000000
                 0 0.000000e+00 0.000000e+00 3.833694e-05 0.0000000000
##
  CSI066
          Otu01451
                       Otu01452 Otu01453
                                              Otu01454
                                                           Otu01455 Otu01456
##
## CST002
                 0 1.362194e-04
                                        0 9.535356e-05 2.724387e-05
                                                                            0
## CSI013
                 0 3.195807e-05
                                        0 2.237065e-04 9.587421e-05
                                                                            0
## CSI023
                 0 2.041025e-05
                                        0 6.123074e-05 0.000000e+00
                                                                            0
                                        0 2.463381e-04 1.515927e-04
## CST034
                 0 5.116253e-04
                                        0 0.000000e+00 3.265093e-05
## CSI045
                 0 0.00000e+00
                                                                            0
                                        0 2.743000e-04 1.332315e-03
  CSI056
                 0 5.877858e-05
## CSI066
                 0 0.00000e+00
                                        0 5.750542e-05 0.000000e+00
                                                                            0
              Otu01457
                           Otu01458
                                        Otu01459 Otu01460 Otu01461 Otu01462
## CSI002 2.315729e-04 0.000000e+00 1.362194e-05
                                                         0
                                                                  0
                                                                            0
  CSI013 2.556646e-04 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                            0
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                            0
  CSI034 8.527088e-04 0.000000e+00 1.515927e-04
                                                         0
                                                                   0
                                                                            0
  CSI045 0.000000e+00 0.000000e+00 6.530186e-05
                                                         0
                                                                   0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                            0
   CSI066 0.000000e+00 3.833694e-05 0.000000e+00
                                                         0
                                                                   0
##
              Otu01463
                           Otu01464
                                        Otu01465 Otu01466
                                                               0 \pm 1101467
  CSI002 0.000000e+00 1.362194e-05 2.724387e-05
                                                         0 0.00000e+00
  CSI013 0.000000e+00 4.474130e-04 3.195807e-05
                                                         0 3.195807e-05
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
  CSI034 0.000000e+00 5.684725e-05 0.000000e+00
                                                         0 0.000000e+00
   CSI045 1.306037e-04 0.000000e+00 0.000000e+00
                                                         0 6.530186e-05
  CSI056 3.722643e-04 0.000000e+00 6.073787e-04
                                                         0.0.000000e+00
   CSI066 1.648489e-03 0.000000e+00 0.000000e+00
                                                         0 1.533478e-04
          Otu01468 Otu01469 Otu01470
                                         Otu01471 Otu01472 Otu01473 Otu01474
##
## CSI002
                 Ω
                          0
                                   0 6.266091e-04
                                                          0
                                                                    0
                                                                             0
                          0
                                                          0
                                                                    0
                                                                             0
## CSI013
                 0
                                    0 1.278323e-04
## CSI023
                 0
                          0
                                    0 8.164098e-05
                                                          0
                                                                    0
                                                                             0
                 0
                          0
                                                          0
                                                                    0
                                                                             0
## CSI034
                                    0 5.305743e-04
## CSI045
                 0
                          0
                                    0 0.00000e+00
                                                          0
                                                                    0
                                                                             0
                 0
                          0
                                                          0
                                                                    0
## CSI056
                                    0 0.00000e+00
                                                                             0
##
  CST066
                 0
                          0
                                    0 0.000000e+00
                                                          0
                                                                    0
                                                                             0
              Otu01475
                           Otu01476
                                         Otu01477
                                                      Otu01478 Otu01479
## CSI002 4.086581e-05 0.0000000000 2.724387e-05 6.810968e-05
                                                                       0
## CSI013 3.195807e-05 0.0000000000 3.195807e-05 2.237065e-04
                                                                       0
## CSI023 0.000000e+00 0.0000000000 0.000000e+00 4.082049e-05
                                                                       0
## CSI034 5.684725e-05 0.0000000000 7.579634e-05 3.031853e-04
```

```
## CSI045 0.000000e+00 0.0006203676 1.959056e-04 0.000000e+00
   CSI056 1.959286e-05 0.0000000000 1.959286e-05 1.959286e-05
                                                                        0
   CSI066 0.000000e+00 0.0003066955 3.258640e-04 1.150108e-04
##
              Otu01480
                                         Otu01482
                            Ot:1101481
                                                       Ot:101483 Ot:101484
   CSI002 1.634632e-04 0.000000e+00 2.724387e-04 1.498413e-04
                                                                        0
   CSI013 2.237065e-04 0.000000e+00 6.391614e-04 2.237065e-04
                                                                        0
   CSI023 0.000000e+00 0.000000e+00 4.082049e-05 0.000000e+00
                                                                        0
   CSI034 9.095560e-04 3.789817e-05 3.600326e-04 2.273890e-04
                                                                        0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 6.530186e-05
                                                                        0
                                                                        Λ
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 1.959286e-05
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
              Otu01485 Otu01486
                                     Otu01487 Otu01488
                                                             Otu01489 Otu01490
##
   CSI002 1.225974e-04
                               0 0.000000e+00
                                                      0 8.173162e-05
                                                                              0
   CSI013 1.917484e-04
                                                      0 3.834969e-04
                               0 0.00000e+00
                                                                              0
  CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
   CSI034 5.684725e-05
                               0 0.00000e+00
                                                      0 2.084399e-04
                                                                              0
   CSI045 0.000000e+00
                               0 3.265093e-05
                                                      0 0.00000e+00
                                                                              0
   CSI056 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
##
   CST066 7.667389e-05
                               0 0.000000e+00
                                                      0 1.916847e-05
                                                                              0
##
          Otu01491
                        Otu01492
                                     Otu01493 Otu01494 Otu01495
                                                                      Ot.1101496
##
  CSI002
                  0 0.000000e+00 2.724387e-05
                                                      Λ
                                                                0 0.00000e+00
## CSI013
                  0 2.237065e-04 3.195807e-05
                                                      0
                                                                0.000000e+00
                  0 0.000000e+00 0.000000e+00
## CSI023
                                                      0
                                                                0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
  CSI034
                                                      0
                                                                0 0.00000e+00
## CST045
                  0 6.987299e-03 3.265093e-05
                                                      Ω
                                                                0.000000e+00
   CSI056
                  0 2.743000e-04 0.000000e+00
                                                      Λ
                                                                0 0.000000e+00
                  0 3.833694e-04 0.000000e+00
                                                      0
##
   CSI066
                                                                0 0.000000e+00
##
          Otu01497 Otu01498 Otu01499 Otu01500 Otu01501 Otu01502 Otu01503
## CSI002
                  0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                           0
## CSI013
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI023
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
##
  CST034
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
   CSI045
                  0
                           0
                                    0
                                              0
                                                        0
                                                                           0
  CSI056
                  0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                           0
##
                           0
                                    0
                                              0
                                                                           0
##
   CSI066
                  0
                                                                 0
              Otu01504 Otu01505 Otu01506 Otu01507
##
                                                        Otu01508 Otu01509
## CSI002 6.810968e-05
                               0
                                         0
                                                  0 0.00000e+00
## CSI013 3.195807e-05
                               0
                                         0
                                                  0 3.195807e-05
                                                                          0
  CSI023 0.000000e+00
                                         0
                                                  0 0.00000e+00
                               0
                                                                          0
                                         0
                                                                          0
  CSI034 1.326436e-04
                               0
                                                  0 0.00000e+00
                               0
  CSI045 0.000000e+00
                                         0
                                                  0 0.00000e+00
## CSI056 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI066 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                          0
                                 Otu01512 Otu01513 Otu01514 Otu01515 Otu01516
##
          Otu01510 Otu01511
## CSI002
                  0
                           0 2.724387e-04
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI013
                                                            0
                                                                     0
                                                                               0
                  0
                           0 3.195807e-04
                                                  0
## CSI023
                 0
                           0 2.041025e-05
                                                  0
                                                            0
                                                                     0
                                                                               0
                  0
## CSI034
                           0 5.116253e-04
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI045
                  0
                           0 0.000000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
  CSI056
                  0
                           0 5.877858e-05
                                                  0
                                                            0
                                                                     0
                                                                               0
##
                           0 3.833694e-05
##
   CST066
                  0
                                                            0
                                                                     0
                                                                               0
##
              Otu01517 Otu01518
                                     Otu01519
                                                   Otu01520
                                                                 Otu01521
## CSI002 2.724387e-05
                               0 0.000000e+00 0.000000e+00 1.362194e-04
## CSI013 3.515388e-04
                               0 0.000000e+00 0.000000e+00 1.597904e-04
```

```
## CSI023 2.041025e-05
                                0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 5.495234e-04
                                0 0.000000e+00 0.000000e+00 2.273890e-04
   CSI045 3.265093e-05
                                0 3.265093e-05 3.265093e-05 0.000000e+00
  CSI056 5.290072e-04
                                0 1.959286e-05 0.000000e+00 0.000000e+00
   CSI066 1.916847e-05
                                0 0.000000e+00 5.750542e-05 0.000000e+00
           Otu01522 Otu01523 Otu01524 Otu01525
                                                      Otu01526 Otu01527 Otu01528
##
## CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
## CSI013
                  0
                            0
                                      0
                                                0 3.195807e-05
                                                                        0
                                                                                 0
## CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                                                                                  0
## CSI034
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        Λ
   CSI045
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                                  0
                            0
                                      0
                                                                        0
                                                                                 0
##
   CSI056
                  0
                                                0 3.134858e-04
##
   CSI066
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
##
               Otu01529
                             Otu01530 Otu01531 Otu01532 Otu01533 Otu01534
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                            0
   CSI034 0.000000e+00 1.894908e-05
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI045 0.000000e+00 0.000000e+00
                                                                  0
                                              0
                                                        0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        Λ
                                                                  0
                                                                            0
           Otu01535
                         Otu01536
                                       Otu01537 Otu01538 Otu01539 Otu01540
##
## CSI002
                  0 5.857433e-04 4.086581e-05
                                                        0
                                                                  0
                                                                            0
  CSI013
                  0 7.989518e-04 1.917484e-04
                                                                  0
                                                        0
                                                                            0
                                                                  0
## CSI023
                  0 4.082049e-05 4.082049e-05
                                                        0
                                                                            0
  CSI034
                  0 1.515927e-04 3.600326e-04
                                                        0
                                                                  0
                                                                            0
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
                  0 0.000000e+00 7.837144e-05
                                                                  0
   CSI056
                                                        0
                                                                            0
                                                                  0
   CSI066
                  0 0.000000e+00 3.833694e-05
                                                        0
                                                                            0
##
##
          Otu01541 Otu01542 Otu01543 Otu01544 Otu01545 Otu01546
                                                                     0tu01547
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
   CSI023
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
##
  CSI034
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI045
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
  CSI056
                  0
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
##
                                      0
   CSI066
                  0
                            0
                                      0
                                                0
                                                         0
##
          Otu01548 Otu01549
                                  Otu01550 Otu01551 Otu01552
                                                                    Otu01553
## CSI002
                  0
                            0 5.448775e-05
                                                    0
                                                              0 0.00000e+00
## CSI013
                  0
                                                    0
                            0 1.278323e-04
                                                              0 1.917484e-04
## CSI023
                  0
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
## CSI034
                  0
                            0 5.684725e-05
                                                    0
                                                                1.136945e-04
   CSI045
                  0
                            0 0.000000e+00
                                                    0
                                                              Ω
                                                                3.265093e-05
##
  CSI056
                  Λ
                            0 0.00000e+00
                                                    0
                                                              0 1.763357e-04
                                                    0
##
   CSI066
                            0 0.00000e+00
                                                              0 0.00000e+00
                         Otu01555 Otu01556 Otu01557 Otu01558
          Otu01554
                                                                Otu01559 Otu01560
##
## CSI002
                  0 2.724387e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013
                                                                                  0
                  0 1.278323e-04
                                          0
                                                    0
                                                              0
                                                                        0
   CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
##
   CSI034
                  0 3.789817e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI045
## CSI056
                  0 5.877858e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI066
                  0 3.258640e-04
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
##
               Otu01561
                             Otu01562 Otu01563
                                                     Otu01564 Otu01565 Otu01566
```

```
## CSI002 0.000000000 0.000000e+00
                                            0 0.00000e+00
                                                                            0
  CSI013 0.0000000000 0.000000e+00
                                            0 0.000000e+00
                                                                   0
                                                                            0
  CSI023 0.0000000000 0.000000e+00
                                            0 0.00000e+00
                                                                   0
                                                                            0
  CSI034 0.0002084399 0.000000e+00
                                            0 0.000000e+00
                                                                   0
                                                                            0
  CSI045 0.0000000000 3.265093e-05
                                            0 1.306037e-04
                                                                   0
  CSI056 0.0000000000 1.567429e-04
                                                                   0
                                            0 1.959286e-05
                                                                            0
  CSI066 0.0000000000 1.150108e-04
                                            0 9.584236e-05
                                                                   0
                                 Otu01569 Otu01570
##
          Otu01567 Otu01568
                                                       Otu01571 Otu01572
## CSI002
                 0
                          0 0.000000e+00
                                                 0 1.498413e-04
                                                                        0
## CSI013
                 0
                          0 0.00000e+00
                                                 0 3.195807e-05
                                                                        0
## CSI023
                 0
                          0 0.00000e+00
                                                 0 0.00000e+00
                                                                        0
                 0
                                                                        0
## CSI034
                          0 1.326436e-04
                                                 0 2.842363e-04
##
  CSI045
                 0
                          0 0.000000e+00
                                                 0 6.530186e-05
                                                                        0
                          0 0.00000e+00
                                                 0 0.00000e+00
## CSI056
                 0
                                                                        0
  CSI066
                 0
                          0 0.000000e+00
                                                                        0
##
                                                 0 1.916847e-05
##
              Otu01573
                           Otu01574
                                         Otu01575
                                                      Otu01576
                                                                    Otu01577
  CSI002 0.000000e+00 0.0000000000 0.000000e+00 6.810968e-05 0.000000e+00
##
   CSI013 0.000000e+00 0.0000000000 0.000000e+00 3.195807e-05 3.195807e-05
  CSI023 0.000000e+00 0.0000000000 0.000000e+00 4.082049e-05 0.000000e+00
  CSI034 0.000000e+00 0.0000000000 0.000000e+00 3.410835e-04 0.000000e+00
  CSI045 1.306037e-04 0.0000000000 1.632546e-04 0.000000e+00 0.000000e+00
  CSI056 1.959286e-04 0.0000000000 2.938929e-04 3.330786e-04 1.371500e-04
  CSI066 0.000000e+00 0.0000000000 1.341793e-04 7.667389e-05 0.000000e+00
##
                                     Otu01580 Otu01581 Otu01582 Otu01583
##
              Otu01578 Otu01579
## CSI002 0.000000e+00
                              0 0.00000e+00
                                                     0
                                                               0
                                                                        0
  CSI013 0.000000e+00
                              0 3.195807e-05
                                                     0
                                                               0
                                                                        0
  CSI023 2.041025e-05
                              0 0.00000e+00
                                                     0
                                                               0
                                                                        0
                                                               0
  CSI034 0.000000e+00
                              0 1.894908e-05
                                                     0
                                                                        0
                                                               0
  CSI045 0.000000e+00
                                                     0
                                                                        0
                              0 9.795279e-05
  CSI056 0.000000e+00
                              0 1.763357e-04
                                                     0
                                                               0
                                                                        0
##
  CSI066 0.000000e+00
                              0 3.833694e-04
                                                     0
                                                               0
                                                                        0
##
              Otu01584
                           Otu01585
                                         Otu01586 Otu01587
                                                              Otu01588
  CSI002 0.000000e+00 0.000000e+00 2.860607e-04
                                                         0 0.000000000
  CSI013 0.000000e+00 0.000000e+00 6.391614e-05
                                                         0 0.000000000
   CSI023 0.000000e+00 0.000000e+00 2.041025e-05
                                                         0 0.000000000
  CSI034 0.000000e+00 0.000000e+00 2.842363e-04
                                                         0 0.00000000
  CSI045 0.000000e+00 3.265093e-05 1.632546e-04
                                                         0.000000000
  CSI056 1.959286e-05 9.012716e-04 9.796430e-05
                                                         0.000000000
  CSI066 2.415227e-03 5.750542e-05 5.750542e-05
##
                                                         0.000000000
                           Otu01590 Otu01591
##
                                                  Otu01592 Otu01593
              Otu01589
  CSI002 0.000000e+00 0.000000e+00
                                            0 1.089755e-04
                                                                   0
## CSI013 0.000000e+00 0.000000e+00
                                            0 4.154549e-04
                                                                   0
  CSI023 1.836922e-04 0.000000e+00
                                            0 1.020512e-04
                                                                   0
  CSI034 9.474542e-05 0.000000e+00
                                                                   0
                                            0 2.842363e-04
  CSI045 3.265093e-04 0.000000e+00
                                            0 0.00000e+00
                                                                   0
  CSI056 1.175572e-04 0.000000e+00
                                            0 1.959286e-04
                                                                   0
##
  CSI066 3.833694e-05 0.000000e+00
                                            0 1.150108e-04
                                                                   0
##
              Otu01594
                           Otu01595
                                         Otu01596
                                                      Otu01597 Otu01598
## CSI002 0.000000e+00 2.724387e-05 5.448775e-05 0.000000e+00
                                                                       0
  CSI013 0.000000e+00 0.000000e+00 9.587421e-04 0.000000e+00
                                                                       0
  CSI023 0.000000e+00 0.000000e+00 2.041025e-05 0.000000e+00
                                                                       0
## CSI034 0.000000e+00 5.684725e-05 1.326436e-04 0.000000e+00
                                                                       0
## CSI045 0.000000e+00 0.000000e+00 9.795279e-05 0.000000e+00
                                                                       0
## CSI056 5.877858e-05 3.918572e-05 3.918572e-05 1.567429e-04
                                                                       0
```

```
## CSI066 0.000000e+00 0.000000e+00 4.217064e-04 1.341793e-04
##
          Otu01599 Otu01600 Otu01601 Otu01602
                                                    Otu01603 Otu01604
## CSI002
                           0
                                    0
                                              0 2.724387e-05
## CSI013
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
##
  CSI023
                 0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
                 0
                           0
  CSI034
                                    0
                                              0 0.00000e+00
                                                                     0
##
                           0
  CSI045
                 0
                                    0
                                              0 0.00000e+00
                                                                     0
                                              0 1.371500e-04
## CSI056
                 0
                           0
                                    0
                                                                     0
##
  CSI066
                 0
                           0
                                    0
                                              0 1.916847e-05
                                                                     0
##
              Otu01605
                            Otu01606 Otu01607
                                                   Otu01608
                                                                Otu01609
  CSI002 2.724387e-05 0.000000e+00
                                             0 0.000000e+00 0.003228399
   CSI013 6.391614e-05 3.195807e-05
                                             0 0.000000e+00 0.000000000
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000000
                                             0 0.000000e+00 0.000000000
   CSI034 4.168798e-04 0.000000e+00
   CSI045 0.000000e+00 0.000000e+00
                                             0 6.530186e-05 0.000000000
   CSI056 0.000000e+00 2.331550e-03
                                             0 3.918572e-05 0.000000000
   CSI066 1.916847e-05 0.000000e+00
                                             0 1.916847e-05 0.000000000
##
          Otu01610 Otu01611
                                 Otu01612 Otu01613 Otu01614
                                                                  Otu01615
## CSI002
                 0
                           0 5.448775e-05
                                                  0
                                                           0 0.0000000000
## CSI013
                 0
                           0 3.195807e-05
                                                  0
                                                           0 0.0002556646
##
  CSI023
                 0
                           0 8.164098e-05
                                                  0
                                                           0 0.000000000
## CSI034
                 0
                           0 4.547780e-04
                                                  0
                                                           0 0.0010611487
## CSI045
                                                  0
                 0
                           0 0.00000e+00
                                                           0 0.000000000
  CSI056
                 0
                           0 2.547072e-04
                                                  0
                                                           0 0.000000000
##
  CSI066
                 0
                           0 3.833694e-05
                                                  0
                                                            0 0.000000000
##
          Otu01616
                        Otu01617 Otu01618 Otu01619
                                                        Otu01620
                                                                      Otu01621
## CSI002
                 0 1.362194e-05
                                                  0 5.448775e-05 0.000000e+00
                                        0
##
   CSI013
                 0 0.00000e+00
                                        0
                                                  0 6.391614e-05 0.000000e+00
   CSI023
                                         0
                                                  0 0.000000e+00 0.000000e+00
##
                 0 0.00000e+00
  CSI034
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
   CSI045
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00 6.530186e-05
##
   CSI056
                 0 0.00000e+00
                                         0
                                                    0.000000e+00 0.000000e+00
##
   CSI066
                  0 0.000000e+00
                                         0
                                                    0.000000e+00 1.150108e-04
##
              Otu01622 Otu01623 Otu01624 Otu01625
                                                    Otu01626
                                                                  Ot:1101627
   CSI002 5.448775e-05
                               0
                                         0
                                                  0
                                                           0 1.089755e-04
  CSI013 6.391614e-05
                               0
                                         0
                                                  0
                                                           0 1.597904e-04
   CSI023 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 4.082049e-05
  CSI034 3.789817e-05
                               0
                                        0
                                                  0
                                                           0 2.273890e-04
   CSI045 0.000000e+00
                               0
                                         0
                                                  0
                                                            0.000000e+00
                                                  0
   CSI056 0.000000e+00
                               0
                                         0
                                                           0.0.000000e+00
                               0
   CSI066 0.000000e+00
                                         0
                                                           0 1.916847e-05
              Otu01628 Otu01629
##
                                     Ot:1101630
                                                   Otu01631 Otu01632
   CSI002 1.362194e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                    0
   CSI013 0.000000e+00
                               0 6.391614e-05 0.000000e+00
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00
                                                                    0
   CSI045 0.000000e+00
                               0 6.530186e-05 0.000000e+00
                                                                    0
                                                                    0
   CSI056 0.000000e+00
                               0 0.000000e+00 3.918572e-05
   CSI066 0.000000e+00
                               0 0.000000e+00 5.367172e-04
                                                                    0
##
              Otu01633 Otu01634 Otu01635 Otu01636
                                                        0tu01637
                                                                      Otu01638
## CSI002 4.086581e-05
                               0
                                        0
                                                  0 8.173162e-05 1.362194e-05
## CSI013 0.000000e+00
                               0
                                         0
                                                  0 6.391614e-05 0.000000e+00
                                                  0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                               0
                                        0
## CSI034 1.894908e-05
                               0
                                        0
                                                  0 5.684725e-05 0.000000e+00
```

```
## CSI045 0.000000e+00
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                  0 0.000000e+00 3.918572e-05
   CSI066 0.000000e+00
                                                  0 0.000000e+00 0.000000e+00
                               0
                                         0
##
             Otu01639 Otu01640
                                    Otu01641 Otu01642 Otu01643 Otu01644
   CSI002 0.001975181
                              0 8.173162e-05
                                                     0
  CSI013 0.000000000
                                                     0
                                                               0
                                                                        0
                              0 1.278323e-04
                                                     0
   CSI023 0.000000000
                              0 0.000000e+00
                                                               0
                                                                        0
  CSI034 0.000000000
                              0 1.705418e-04
                                                     0
                                                               0
                                                                        0
   CSI045 0.000000000
                              0 3.265093e-05
                                                     0
                                                               0
                                                                        0
                                                     0
                                                               Λ
   CSI056 0.000000000
                              0 0.00000e+00
                                                                        0
   CSI066 0.000000000
                              0 0.00000e+00
                                                     0
                                                                        0
##
              Otu01645
                            Otu01646
                                         Otu01647 Otu01648
                                                                 Otu01649
##
   CSI002 4.086581e-05 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
   CSI013 2.237065e-04 3.195807e-05 3.195807e-05
                                                          0 0.00000e+00
   CSI023 2.041025e-05 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
   CSI034 9.474542e-05 1.894908e-05 0.000000e+00
                                                          0 0.00000e+00
   CSI045 3.265093e-05 1.306037e-04 0.000000e+00
                                                          0 3.265093e-05
   CSI056 1.175572e-04 1.959286e-05 0.000000e+00
                                                          0 0.00000e+00
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                          0 1.916847e-05
##
          Otu01650
                        Otu01651
                                     Otu01652
                                                   Otu01653
                                                                 Otu01654
##
  CSI002
                 0 0.000000e+00 5.448775e-05 0.000000e+00 1.362194e-05
  CSI013
                 0 9.267841e-04 1.278323e-04 9.587421e-04 6.391614e-05
## CSI023
                 0 0.000000e+00 0.000000e+00 0.000000e+00 4.082049e-05
                 0 5.684725e-05 1.136945e-04 0.000000e+00 1.705418e-04
   CSI034
                 0 3.265093e-05 3.265093e-05 0.000000e+00 0.000000e+00
##
   CST045
   CSI056
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066
                 0 0.000000e+00 3.833694e-05 2.300217e-04 0.000000e+00
##
          Otu01655 Otu01656 Otu01657 Otu01658 Otu01659
##
                                                             Otu01660
                                                       0 2.724387e-05
   CSI002
                                              0
##
                 0
                           0
                                    0
  CSI013
                 0
                           0
                                    0
                                              0
                                                       0 2.556646e-04
##
  CSI023
                 0
                           0
                                    0
                                              0
                                                       0 1.020512e-04
##
   CSI034
                 0
                           0
                                    0
                                              0
                                                       0.5.305743e-04
   CSI045
                 0
                           0
                                    0
                                              0
                                                       0 0.00000e+00
                           0
                                              0
  CSI056
                 0
                                    0
                                                       0 0.00000e+00
##
                 0
                           0
                                    0
                                              0
                                                       0 0.00000e+00
##
   CSI066
              Otu01661
                            Otu01662 Otu01663 Otu01664 Otu01665
##
                                                                      Ot:1101666
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 4.086581e-05
  CSI013 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 6.391614e-05
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0.000000e+00
   CSI034 0.000000e+00 0.000000e+00
                                             0
                                                      Λ
                                                                0.000000e+00
   CSI045 0.000000e+00 1.959056e-04
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI056 0.000000e+00 3.722643e-04
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI066 0.000000e+00 1.916847e-04
                                             0
                                                      0
                                                                \cap
                                                                 0.000000e+00
                                     Otu01669 Otu01670 Otu01671
##
          Otu01667
                        Otu01668
                                                                      Otu01672
  CSI002
                 0 1.907071e-04 0.000000e+00
                                                      0
                                                                0 0.00000e+00
## CSI013
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
  CSI023
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 2.041025e-05
   CSI034
                 0 3.789817e-05 0.000000e+00
                                                      0
                                                                0 0.00000e+00
  CSI045
                 0 3.265093e-05 0.000000e+00
                                                      0
                                                                0 0.000000e+00
   CSI056
                 0 1.959286e-05 1.959286e-05
                                                      0
                                                                0 0.00000e+00
##
                 0 0.000000e+00 0.000000e+00
                                                      0
##
   CST066
                                                                0.0.000000e+00
##
              Otu01673 Otu01674 Otu01675 Otu01676 Otu01677 Otu01678 Otu01679
## CSI002 1.362194e-05
                               0
                                         0
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI013 2.237065e-04
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                              0
```

```
## CSI023 0.000000e+00
                               0
                                                  0
                                                            0
                                                                     0
                                                                               0
                                                                               0
  CSI034 1.894908e-04
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI045 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
   CSI056 0.000000e+00
                                         0
                                                  0
                                                            Λ
                                                                     0
                                                                               0
                               0
##
   CSI066 0.000000e+00
                               0
                                                  0
                                                            0
                                                                     0
                                                                               0
                                                        Otu01683 Otu01684
##
              Otu01680
                            Otu01681
                                          Otu01682
   CSI002 2.588168e-04 0.000000e+00 2.451949e-04 1.362194e-05
                                                                         0
  CSI013 2.876226e-04 0.000000e+00 9.587421e-05 0.000000e+00
                                                                         0
   CSI023 8.164098e-05 0.000000e+00 2.041025e-05 0.000000e+00
                                                                         0
   CSI034 9.474542e-05 0.000000e+00 1.136945e-04 0.000000e+00
                                                                         0
   CSI045 0.000000e+00 6.530186e-05 3.265093e-05 0.000000e+00
   CSI056 0.000000e+00 2.351143e-04 7.837144e-05 0.000000e+00
                                                                         0
   CSI066 0.000000e+00 1.150108e-04 7.667389e-05 0.000000e+00
                                                                         0
##
              Otu01685
                            Otu01686 Otu01687
                                                   Otu01688
                                                                 Otu01689
   CSI002 1.362194e-05 4.086581e-05
                                             0 6.810968e-05 0.000000e+00
##
   CSI013 0.000000e+00 2.237065e-04
                                             0 1.278323e-04 0.000000e+00
   CSI023 1.020512e-04 1.020512e-04
                                             0 2.041025e-05 0.000000e+00
   CSI034 5.684725e-05 1.894908e-04
                                             0 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00 3.265093e-05
                                             0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 1.665393e-03
##
   CSI066 7.667389e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
                            Otu01691 Otu01692 Otu01693 Otu01694
##
              Ot:1101690
                                                                      Ot:1101695
  CSI002 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.000000e+00
   CSI013 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0.000000e+00
   CSI034 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0 0.000000e+00
   CSI045 6.530186e-05 3.265093e-04
                                             0
                                                      0
                                                                0 0.000000e+00
   CSI056 7.837144e-05 1.175572e-04
                                             0
                                                      0
                                                                0 1.959286e-05
                                             0
   CSI066 0.000000e+00 1.341793e-04
##
                                                      0
                                                                0 2.300217e-04
##
              Otu01696
                            Otu01697 Otu01698
                                                   Otu01699 Otu01700 Otu01701
##
   CSI002 1.089755e-04 6.810968e-05
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI013 1.278323e-04 1.597904e-04
                                             0 3.195807e-05
                                                                    0
                                                                              0
   CSI023 0.000000e+00 4.082049e-05
                                             0 0.00000e+00
                                                                    0
                                                                              0
                                                                    0
   CSI034 6.063707e-04 1.894908e-05
                                             0 1.894908e-05
                                                                              0
   CSI045 0.000000e+00 2.285565e-04
                                                                    0
                                             0 0.000000e+00
                                                                              0
   CSI056 0.000000e+00 1.175572e-04
                                                                    0
                                             0 0.000000e+00
                                                                              0
   CSI066 1.916847e-05 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
##
              Otu01702 Otu01703
                                     Otu01704
                                                   Otu01705 Otu01706
  CSI002 0.000000e+00
                               0 1.498413e-04 0.000000e+00
                                                                    0
   CSI013 0.000000e+00
                               0 3.195807e-05 0.000000e+00
                                                                    0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
  CSI034 0.000000e+00
                               0 2.273890e-04 0.000000e+00
                                                                    0
   CSI045 1.306037e-04
                               0 3.265093e-05 0.000000e+00
                                                                    0
                                                                    0
                               0 0.000000e+00 0.000000e+00
   CSI056 5.877858e-05
   CSI066 1.916847e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
##
              Otu01707 Otu01708 Otu01709 Otu01710 Otu01711 Otu01712 Otu01713
   CSI002 4.086581e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
                                                                               0
   CSI013 7.350356e-04
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI023 4.082049e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
   CSI034 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
                               0
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
   CSI045 6.530186e-05
   CSI056 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
##
  CSI066 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
##
          Otu01714
                        Otu01715
                                     Otu01716 Otu01717 Otu01718
                                                                      0t_{11}01719
```

```
## CSI002
                 0 8.173162e-05 0.0000000000
                                                      0
                                                                0 0.00000e+00
                 0 3.834969e-04 0.0001278323
  CST013
                                                      0
                                                                0 0.00000e+00
                                                                0 0.000000e+00
  CSI023
                 0 0.000000e+00 0.0000000000
                                                      0
  CSI034
                 0 1.326436e-04 0.0000000000
                                                      0
                                                                0 0.000000e+00
   CSI045
                   0.000000e+00 0.0000000000
                                                      0
                                                                0 3.265093e-05
                  0 1.959286e-05 0.0000000000
##
  CSI056
                                                      Ω
                                                                0 3.918572e-05
                  0 0.000000e+00 0.0000000000
   CSI066
                                                                0 5.750542e-05
##
          Ot:1101720
                   Otu01721 Otu01722
                                           Otu01723 Otu01724
                                                                  Ot:1101725
## CSI002
                 Λ
                           0
                                    0 0.00000e+00
                                                           0 0.000000000
                           0
                                                           0 0.0001278323
##
  CSI013
                 0
                                     0 0.000000e+00
  CSI023
                 0
                           0
                                     0 0.000000e+00
                                                            0 0.0000000000
                 0
                           0
## CSI034
                                     0 0.000000e+00
                                                             0.000000000
  CSI045
                 0
                           0
                                    0 9.795279e-05
                                                           0 0.000000000
##
                                     0 5.877858e-05
##
  CSI056
                 0
                           0
                                                            0 0.000000000
  CSI066
                 0
                           0
                                     0 2.300217e-04
##
                                                           0 0.000000000
##
          Otu01726
                        Otu01727 Otu01728 Otu01729
                                                        Otu01730 Otu01731
## CSI002
                 0 2.724387e-05
                                         0
                                                  0 0.00000e+00
                                                                         0
   CSI013
                  0 9.587421e-05
                                         0
                                                  0 3.195807e-05
                                                                         0
  CSI023
                                        0
                                                  0 0.00000e+00
                                                                         0
##
                 0 6.123074e-05
  CSI034
                   2.652872e-04
                                         0
                                                  0 1.136945e-04
                                                                         0
##
  CST045
                  0 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                         0
   CSI056
                   1.959286e-05
                                         0
                                                  0 0.000000e+00
                                                                         0
##
  CST066
                  0 0.000000e+00
                                         0
                                                  0 0.00000e+00
                                                                         0
##
          Otu01732 Otu01733 Otu01734 Otu01735
                                                    Otu01736
                                                                  Ot:1101737
## CSI002
                 0
                           0
                                    0
                                              0 1.362194e-05 1.089755e-04
  CSI013
                 0
                           0
                                    0
                                              0 3.195807e-05 1.597904e-04
  CSI023
                 0
                           0
                                    0
                                              0 0.000000e+00 2.041025e-05
##
                           0
##
   CSI034
                 0
                                    0
                                              0 3.789817e-05 2.652872e-04
                 0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
##
   CSI045
  CSI056
                 0
                           0
                                     0
                                              0 7.837144e-05 5.094144e-04
##
   CSI066
                 0
                           0
                                     0
                                              0 3.833694e-05 5.750542e-05
##
              Otu01738
                            Otu01739
                                          Otu01740 Otu01741
                                                                 0 \pm 1101742
   CSI002 0.000000e+00 1.362194e-05 0.000000e+00
                                                           0 0.00000e+00
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
   CSI023 4.082049e-05 0.000000e+00 0.000000e+00
                                                           0 0.00000e+00
   CSI034 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0.0.000000e+00
   CSI045 0.000000e+00 6.530186e-05 0.000000e+00
                                                           0 0.00000e+00
   CSI056 8.620859e-04 9.796430e-05 3.722643e-04
                                                           0 0.000000e+00
   CSI066 0.000000e+00 2.108532e-04 0.000000e+00
                                                           0 3.833694e-05
##
          Otu01743
                        Otu01744 Otu01745
                                               Otu01746
                                                             Otu01747 Otu01748
  CSI002
                 0 3.814142e-04
                                         0 0.000000e+00 0.000000e+00
## CSI013
                 0 1.597904e-04
                                         0 0.000000e+00 3.195807e-05
                                                                             0
  CSI023
                 0 4.082049e-05
                                         0 0.000000e+00 0.000000e+00
                                                                              0
                 0 5.874216e-04
                                         0 3.789817e-05 3.789817e-05
                                                                              0
   CSI034
  CSI045
                 0 6.530186e-05
                                         0 0.000000e+00 0.000000e+00
                                                                              0
  CSI056
                                         0 0.000000e+00 4.702286e-04
##
                 0 0.00000e+00
                                                                              0
##
   CSI066
                 0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
##
              Otu01749 Otu01750
                                      Otu01751
                                                   0tu01752
                                                                 Otu01753
  CSI002 0.000000e+00
                               0 0.000000e+00 1.362194e-05 1.362194e-05
   CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
## CSI034 0.000000e+00
                               0 4.926762e-04 0.000000e+00 0.000000e+00
## CSI045 2.938584e-04
                               0 0.000000e+00 3.265093e-05 0.000000e+00
## CSI056 1.959286e-05
                               0 0.000000e+00 7.837144e-05 0.000000e+00
```

```
## CSI066 7.667389e-05
                                0 3.833694e-05 1.533478e-04 0.000000e+00
##
          Otu01754 Otu01755
                                  Otu01756 Otu01757 Otu01758 Otu01759 Otu01760
## CSI002
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                                                0
## CSI013
                  Ω
                            0 0.000000e+00
                                                   0
                                                             Λ
                                                                      0
## CSI023
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                  0
                                                   0
                                                             Λ
                                                                                O
## CSI034
                            0 0.00000e+00
                                                                      0
## CSI045
                  0
                            0 3.265093e-05
                                                   0
                                                             0
                           0 0.00000e+00
## CSI056
                  0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI066
                  0
                            0 2.491901e-04
                                                   0
                                                             0
                                                                      0
                                                                                O
##
               Otu01761 Otu01762 Otu01763 Otu01764 Otu01765 Otu01766 Otu01767
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI045 6.530186e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                0
                                         0
                                                   0
                                                             0
  CSI066 0.000000e+00
                                                                                0
##
              Otu01768 Otu01769 Otu01770
                                                Otu01771 Otu01772
                                                                        Otu01773
## CSI002 1.498413e-04
                                0
                                         0 0.000000e+00
                                                                 0 0.000000e+00
## CSI013 6.391614e-05
                                0
                                         0 0.000000e+00
                                                                 0 3.195807e-05
## CSI023 4.082049e-05
                                0
                                         0 0.000000e+00
                                                                 0 4.082049e-05
## CSI034 5.305743e-04
                                0
                                         0 0.000000e+00
                                                                 0 3.789817e-05
## CSI045 0.000000e+00
                                0
                                         0 6.530186e-05
                                                                 0 0.000000e+00
## CSI056 0.000000e+00
                                0
                                         0 4.506358e-04
                                                                 0 5.877858e-05
## CSI066 0.000000e+00
                                0
                                         0 1.533478e-04
                                                                 0 1.916847e-05
              Otu01774 Otu01775 Otu01776 Otu01777 Otu01778 Otu01779
## CSI002 0.000000e+00
                                0
                                                             0
                                         0
                                                   0
                                                                      0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI023 6.123074e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
  CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
              Otu01780 Otu01781 Otu01782 Otu01783 Otu01784
##
                                                              Otu01785 Otu01786
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034 0.000000e+00
                                0
                                         Λ
                                                   0
                                                             Λ
                                                                                Λ
                                                                      0
## CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                0
## CSI056 0.000000e+00
                                         Λ
                                                   0
                                                             Λ
                                                                      0
                                                                                O
                                0
  CSI066 3.833694e-05
                                                             0
##
                            Otu01788
                                          Otu01789 Otu01790 Otu01791 Otu01792
              0t.1101787
## CSI002 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
                                                                               0
                                                                     0
## CSI013 9.587421e-05 0.000000e+00 0.000000e+00
                                                            0
                                                                               0
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
                                                                               0
## CSI034 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
                                                                               0
   CSI045 0.000000e+00 1.632546e-04 0.000000e+00
                                                            0
                                                                     0
                                                                               0
   CSI056 1.959286e-05 5.877858e-05 1.959286e-05
                                                                     0
                                                                               0
   CSI066 5.750542e-05 5.750542e-05 0.000000e+00
                                                            0
                                                                     0
                                                                               0
##
          Otu01793 Otu01794 Otu01795
                                           Otu01796 Otu01797 Otu01798 Otu01799
## CSI002
                            0
                  0
                                     0 8.173162e-05
                                                             0
                                                                      0
                                                                                0
                            0
## CSI013
                  0
                                     0 4.474130e-04
                                                             0
                                                                      0
                                                                                0
## CSI023
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
## CSI034
                  0
                           0
                                     0 2.842363e-04
                                                             0
                                                                      0
                                                                                0
```

```
## CSI045
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
  CST056
                                     0 0.000000e+00
                                                            0
                  0
                           0
                                                                      0
##
   CSI066
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                    Otu01803 Otu01804
##
          Otu01800
                                      Otu01802
                        Ot:1101801
##
   CST002
                  0 5.448775e-04 0.000000e+00 0.000000e+00
                                                                     0
  CSI013
                  0 5.432872e-04 0.000000e+00 0.000000e+00
##
                                                                     0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023
                                                                     0
                  0 4.358289e-04 0.000000e+00 0.000000e+00
## CSI034
                                                                     0
   CSI045
                  0 0.000000e+00 3.265093e-05 0.000000e+00
                                                                     0
                                                                     0
   CSI056
                  0 1.959286e-05 1.978879e-03 0.000000e+00
   CSI066
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
##
              Otu01805
                            Otu01806
                                          Otu01807 Otu01808
                                                                  Otu01809
##
   CSI002 0.0000000000 0.000000e+00 5.448775e-05
                                                           0 1.362194e-05
   CSI013 0.0000000000 1.278323e-04 3.195807e-05
                                                           0 0.00000e+00
   CSI023 0.0004286152 0.000000e+00 0.000000e+00
                                                           0 4.082049e-05
   CSI034 0.0000000000 1.515927e-04 1.136945e-04
                                                           0 3.789817e-05
   CSI045 0.0000000000 1.959056e-04 3.265093e-05
                                                           0 0.00000e+00
   CSI056 0.0000000000 1.175572e-04 3.918572e-05
                                                           0 0.000000e+00
   CSI066 0.0000000000 1.916847e-05 1.916847e-05
##
                                                           0.0.000000e+00
##
          Otu01810 Otu01811 Otu01812
                                           Otu01813
                                                         Otu01814 Otu01815
##
  CSI002
                  0
                           0
                                     0 4.767678e-04 0.000000e+00
                                                                          0
## CSI013
                  0
                           0
                                     0 2.556646e-04 0.000000e+00
                                                                          0
## CSI023
                           0
                                     0 6.123074e-05 0.000000e+00
                                                                          0
                  0
                           0
                                     0 5.874216e-04 1.894908e-05
  CSI034
                  0
                                                                          0
                           0
## CST045
                  0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
   CSI056
                  0
                           0
                                     0 0.000000e+00 7.837144e-05
                                                                          0
   CSI066
                  0
                           0
                                     0 1.916847e-05 7.667389e-05
                                                                          0
##
##
          Otu01816 Otu01817
                                  Otu01818
                                               Otu01819 Otu01820 Otu01821
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
##
  CSI002
                  0
## CSI013
                  0
                           0 0.000000e+00 2.876226e-04
                                                                 0
                                                                          0
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
##
   CST034
                  0
                           0 0.000000e+00 7.011161e-04
                                                                 0
                                                                          0
   CSI045
                  0
                             0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
                           0 3.918572e-05 0.000000e+00
                                                                 0
##
  CSI056
                  0
                                                                          0
                           0 1.916847e-05 0.000000e+00
                                                                 0
                                                                          0
##
   CSI066
                  0
              Otu01822 Otu01823 Otu01824 Otu01825
##
                                                         Otu01826 Otu01827
  CSI002 0.000000e+00
                               0
                                         0
                                                   0 1.362194e-05
                                                                          0
  CSI013 0.000000e+00
                               0
                                         0
                                                   0 3.195807e-05
                                                                          0
   CSI023 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
                               0
                                         0
                                                                          0
  CSI034 5.684725e-05
                               0
                                                   0 1.136945e-04
                                         0
   CSI045 3.265093e-05
                               0
                                                   0 1.632546e-04
                                                                          0
   CSI056 0.000000e+00
                               0
                                         0
                                                   0 1.959286e-05
                                                                          0
   CSI066 0.000000e+00
                               0
                                         0
                                                   \cap
                                                    0.000000e+00
                                                                          0
              Otu01828 Otu01829 Otu01830 Otu01831
##
                                                         Otu01832 Otu01833
   CSI002 1.362194e-04
                               0
                                         0
                                                   0 1.362194e-05
                                                                          0
   CSI013 3.195807e-04
                                         0
                                                   0 9.587421e-05
                                                                          0
                               0
   CSI023 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
                                         0
   CSI034 8.148106e-04
                               0
                                                   0 2.652872e-04
                                                                          0
   CSI045 6.530186e-05
                               0
                                         0
                                                   0 6.530186e-05
                                                                          0
   CSI056 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
   CSI066 0.000000e+00
                               0
                                         0
                                                                          0
##
                                                   0
                                                     2.875271e-04
##
          Otu01834
                        Otu01835 Otu01836 Otu01837
                                                         Otu01838 Otu01839
## CSI002
                  0 8.173162e-05
                                         0
                                                   0.0000000000
                                                                          0
## CSI013
                  0 3.195807e-05
                                         0
                                                   0 0.000000000
                                                                          0
```

0

0

0

```
## CSI023
                 0 0.00000e+00
                                        0
                                                  0 0.000000000
                                                                         0
                                        0
                                                                         0
##
  CST034
                 0 1.136945e-04
                                                    0.000000000
                                                    0.000000000
   CSI045
                  0 0.000000e+00
                                        0
                                                                         0
  CSI056
                  0 0.000000e+00
                                                    0.000000000
                                                                         0
##
                                        0
##
   CST066
                  0 3.833694e-05
                                        0
                                                  0 0.0002875271
                                                                         0
                                                          Otu01844 Otu01845
##
              Otu01840 Otu01841
                                   Otu01842 Otu01843
  CSI002 0.000000e+00
                               0.00000000
                                                    0 0.000000e+00
                                                                           0
  CSI013 0.000000e+00
                               0 0.00000000
                                                    0 9.587421e-05
                                                                           0
   CSI023 0.000000e+00
                               0 0.00000000
                                                    0 0.000000e+00
                                                                           O
                                                                           0
   CSI034 0.000000e+00
                               0 0.00000000
                                                    0 0.00000e+00
   CSI045 0.000000e+00
                               0 0.00104483
                                                    0 6.530186e-05
                                                                           0
                                                                           0
   CSI056 0.000000e+00
                               0 0.00000000
                                                    0 3.918572e-05
##
   CSI066 1.916847e-05
                               0.00000000
                                                    0 0.000000e+00
                                                                           0
                                     Otu01848 Otu01849 Otu01850 Otu01851
##
          Otu01846
                        Otu01847
  CSI002
                 0 0.000000000 0.000000e+00
                                                                0
                                                                         0
##
                                                      0
   CSI013
                 0 0.000000000 0.000000e+00
                                                      0
                                                                0
                                                                         0
##
                                                                0
                                                                         0
##
   CSI023
                 0 0.0000000000 5.306664e-04
                                                      0
   CSI034
                  0 0.0000000000 1.894908e-05
                                                      0
                                                                0
                                                                         0
                                                                0
                                                                         0
  CSI045
                 0 0.000000000 9.795279e-05
                                                      0
##
##
   CSI056
                  0 0.0000000000 0.000000e+00
                                                      0
                                                                0
                                                                         0
##
   CST066
                  0 0.0000000000 1.916847e-05
                                                      Λ
                                                                0
                                                                         0
              Otu01852 Otu01853
##
                                     Ot:1101854
                                                   Otu01855
                               0 9.535356e-05 0.000000e+00 0.000000e+00
##
  CST002 0.000000e+00
   CSI013 0.000000e+00
                               0 1.278323e-04 0.000000e+00 0.000000e+00
   CSI023 6.939484e-04
                               0 2.041025e-05 0.000000e+00 0.000000e+00
   CSI034 1.894908e-05
                               0 1.326436e-04 0.000000e+00 5.684725e-05
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00 6.530186e-05
   CSI056 0.000000e+00
                               0 0.000000e+00 1.959286e-05 0.000000e+00
   CSI066 0.000000e+00
                               0 0.000000e+00 1.916847e-05 5.750542e-05
##
##
          Otu01857 Otu01858 Otu01859
                                           Otu01860
                                                        Otu01861 Otu01862
## CSI002
                 0
                           0
                                    0 2.724387e-04 0.0000000000
                                                                         0
##
   CSI013
                 0
                           0
                                    0 3.515388e-04 0.0000000000
                                                                         0
##
   CSI023
                 0
                           0
                                    0 2.041025e-05 0.0000000000
                                                                         0
                 0
                           0
                                                                         0
  CSI034
                                    0 1.326436e-04 0.0005116253
##
   CSI045
                 0
                           0
                                      0.000000e+00 0.0000000000
                                                                         0
##
                           0
                                    0 0.000000e+00 0.0000000000
                                                                         0
##
  CST056
                 0
##
   CSI066
                 0
                           0
                                    0 0.000000e+00 0.0001533478
                                                                         0
##
              Otu01863
                            Otu01864 Otu01865
                                                   Otu01866 Otu01867
   CSI002 0.000000e+00 0.000000e+00
                                             0.0000000000
                                                                    0
   CSI013 0.000000e+00 0.000000e+00
                                                                    0
                                             0 0.000000000
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000000
                                                                    0
   CSI034 1.894908e-05 5.684725e-05
                                                                    0
                                             0.0000000000
   CSI045 6.530186e-05 0.000000e+00
                                             0 0.0001306037
                                                                    0
                                                                    0
   CSI056 1.959286e-05 0.000000e+00
                                             0 0.0002938929
                                                                    0
   CSI066 0.000000e+00 3.833694e-05
                                             0 0.000000000
##
              Otu01868
                            Otu01869
                                          Otu01870
                                                       Otu01871 Otu01872
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI013 0.000000e+00 0.000000e+00 3.195807e-05 0.000000e+00
                                                                        0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI034 0.000000e+00 2.084399e-04 0.000000e+00 7.579634e-05
                                                                        0
   CSI045 0.000000e+00 3.265093e-05 0.000000e+00 0.000000e+00
                                                                        0
   CSI056 0.000000e+00 2.155215e-04 0.000000e+00 0.000000e+00
                                                                        0
##
   CSI066 3.833694e-05 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
##
          Otu01873
                      Otu01874 Otu01875 Otu01876
                                                       Otu01877 Otu01878
```

```
## CSI002
                  0 0.00000000
                                        0
                                                  0 5.448775e-05
  CST013
                  0.000000000
                                                  0 9.907002e-04
##
                                        0
                                                                         0
  CSI023
                                                  0 6.123074e-05
                  0 0.000000000
                                        0
                                                                         0
  CSI034
                   0.000000000
                                        0
                                                  0 9.474542e-05
                                                                         0
##
##
   CSI045
                    0.000000000
                                        0
                                                  0 0.000000e+00
                                                                         0
                                                  0 0.000000e+00
                                                                         0
##
  CSI056
                  0 0.000000000
                                        Ω
##
   CSI066
                   0.00000000
                                        0
                                                  0 0.00000e+00
                                                                         0
##
          Ot:1101879
                        Otu01880
                                      Ot:1101881
                                                    Ot:1101882
                                                                  Ot:1101883
## CSI002
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI013
                  0 0.000000e+00 3.195807e-05 0.000000e+00 0.000000e+00
  CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                  0 1.894908e-05 0.000000e+00 0.000000e+00 3.789817e-05
##
  CSI034
##
   CSI045
                  0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI056
                  0 3.918572e-05 0.000000e+00 1.959286e-05 0.000000e+00
  CSI066
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
##
          Otu01884
                        Otu01885 Otu01886 Otu01887 Otu01888
                                                                   Otu01889
  CSI002
##
                  0 0.000000000
                                         0
                                                   0
                                                            0 3.677923e-04
   CSI013
                  0 0.0007030776
                                         0
                                                   0
                                                            0 1.597904e-04
  CSI023
                  0 0.000000000
                                                   0
##
                                         0
                                                            0 4.082049e-05
   CSI034
                  0 0.0006821670
                                         0
                                                   0
                                                            0 1.515927e-04
##
   CSI045
                  0.000000000
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI056
                  0.0000000000
                                         0
                                                   0
                                                            0 0.000000e+00
                                         0
##
  CSI066
                  0 0.0001725162
                                                   0
                                                            0.000000e+00
               Otu01890 Otu01891 Otu01892 Otu01893
##
                                                         Otu01894 Otu01895
                                                   0 2.179510e-04
##
  CSI002 1.907071e-04
                                0
                                         0
                                                                          0
   CSI013 3.195807e-04
                                0
                                         0
                                                   0 1.278323e-04
                                                                          0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0 6.123074e-05
                                                                          0
                                         0
   CSI034 3.031853e-04
                                0
                                                   0 8.527088e-04
                                                                          0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00
                                                                          0
   CSI056 0.000000e+00
                                0
                                         0
                                                   0 3.918572e-05
                                                                          0
##
   CSI066 3.833694e-05
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
##
          Otu01896
                        Otu01897 Otu01898 Otu01899
                                                     Otu01900 Otu01901
##
  CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
  CSI013
                  0 0.000000e+00
                                                   0
                                                            0
                                                                      0
##
                                         0
   CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                         0
                                                   0
                                                            0
##
   CST034
                  0 0.00000e+00
                                                                      0
   CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
  CSI056
                  0 2.547072e-04
                                         0
                                                   0
                                                            Λ
                                                                      0
##
                  0 1.725162e-04
                                         0
                                                   0
                                                             0
##
   CSI066
               Otu01902
##
                            Otu01903 Otu01904 Otu01905 Otu01906 Otu01907
  CSI002 2.724387e-05 9.535356e-05
                                             0
                                                       0
                                                                 0
   CSI013 6.391614e-05 1.597904e-04
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI023 0.000000e+00 6.123074e-05
                                             0
                                                       0
                                                                 0
                                                                          0
                                             0
                                                                 0
   CSI034 1.894908e-05 1.515927e-04
                                                       0
                                                                          0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                          0
   CSI056 3.918572e-05 1.959286e-05
                                             0
                                                                 0
                                                                          0
                                                       0
##
   CSI066 3.833694e-05 2.875271e-04
                                             0
                                                       0
                                                                 0
          Otu01908 Otu01909
##
                                  Otu01910
                                                Otu01911 Otu01912
                                                                       Otu01913
                                                                 0 1.498413e-04
## CSI002
                  0
                           0 4.086581e-05 0.000000e+00
##
  CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 9.587421e-05
                  0
                           0 0.000000e+00 0.000000e+00
##
  CSI023
                                                                 0 0.00000e+00
## CSI034
                  0
                           0 2.463381e-04 9.474542e-05
                                                                 0 1.326436e-04
## CSI045
                  0
                           0 0.000000e+00 3.265093e-05
                                                                 0 0.000000e+00
## CSI056
                  0
                           0 0.000000e+00 3.918572e-05
                                                                 0 3.918572e-05
```

```
## CSI066
                 0
                           0 0.000000e+00 0.000000e+00
                                                               0 1.916847e-05
##
                                 Otu01916 Otu01917 Otu01918 Otu01919 Otu01920
          Otu01914 Otu01915
                           0 2.724387e-05
## CSI002
                 0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI013
                                                                              0
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                    0
## CSI023
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                    0
                                                                              0
                                                  0
                                                           0
                                                                              O
## CSI034
                 0
                           0 9.474542e-05
                                                                    0
## CSI045
                 0
                           0 6.530186e-05
                                                  0
                                                           0
                                                                              0
                           0 3.134858e-04
## CSI056
                 0
                                                  0
                                                           0
                                                                    0
                                                                              0
##
  CSI066
                 0
                           0 9.584236e-05
                                                  0
                                                           0
                                                                    0
                                                                              O
                        Otu01922 Otu01923 Otu01924
##
          Otu01921
                                                   Otu01925
                                                             Otu01926
                                                                      Otu01927
## CSI002
                 0 0.00000e+00
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
  CSI013
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
##
                 0 0.000000e+00
##
  CSI023
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
                 0 0.000000e+00
##
  CSI034
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
  CSI045
                 0 3.265093e-04
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
##
  CSI056
                 0 1.371500e-04
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
##
                                        0
                                                  0
                                                                    0
                                                                              0
##
  CSI066
                 0 0.00000e+00
                                                           0
                                     Otu01930
##
              Otu01928 Otu01929
                                                   Otu01931
                                                                Otu01932
                               0 0.000000e+00 1.362194e-05 5.448775e-05
## CSI002 0.000000e+00
  CSI013 0.000000e+00
                               0 0.000000e+00 9.587421e-05 6.391614e-05
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00
                               0 0.000000e+00 5.684725e-05 6.632179e-04
  CSI045 0.000000e+00
                               0 6.530186e-05 9.795279e-05 0.000000e+00
                               0 1.959286e-05 7.837144e-05 0.000000e+00
  CSI056 1.567429e-04
                               0 3.833694e-05 5.750542e-05 0.000000e+00
  CSI066 3.833694e-05
              Otu01933
                            Otu01934
                                         Otu01935
                                                       Otu01936 Otu01937
  CSI002 0.000000e+00 2.043291e-04 0.000000e+00 0.0000000000
                                                                        0
##
   CSI013 0.000000e+00 2.876226e-04 0.000000e+00 0.0000000000
                                                                        0
   CSIO23 0.000000e+00 2.041025e-05 0.000000e+00 0.0000000000
                                                                        0
   CSI034 0.000000e+00 8.716579e-04 1.136945e-04 0.0000000000
                                                                        0
   0
   CSI056 3.918572e-05 3.918572e-05 1.959286e-05 0.0000000000
                                                                        0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.0005942226
##
              Otu01938 Otu01939 Otu01940 Otu01941 Otu01942 Otu01943 Otu01944
  CSI002 2.724387e-05
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
  CSI013 3.195807e-05
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
  CSI023 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
  CSI034 0.000000e+00
                               0
                                        0
                                                  0
                                                           Λ
                                                                    0
                                                                              Λ
  CSI045 0.000000e+00
                               0
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
  CSI056 0.000000e+00
                               0
                                        0
                                                  0
                                                           Λ
                                                                    0
                                                                              O
   CSI066 0.000000e+00
                               0
                                        0
                                                           0
                                                  0
                                                                              0
              Otu01945 Otu01946 Otu01947 Otu01948
##
                                                        Otu01949 Otu01950
  CSI002 2.179510e-04
                               0
                                        0
                                                  0 1.362194e-05
                                                                         0
  CSI013 0.000000e+00
                               0
                                        0
                                                                         0
                                                  0 6.391614e-05
  CSI023 0.000000e+00
                               0
                                        0
                                                  0 0.00000e+00
                                                                         0
  CSI034 1.894908e-05
                               0
                                        0
                                                                         0
                                                  0 0.00000e+00
   CSI045 0.000000e+00
                               0
                                        0
                                                  0 3.265093e-05
                                                                         0
                               0
   CSI056 0.000000e+00
                                        0
                                                  0 1.391093e-03
                                                                         0
##
   CSI066 7.667389e-05
                               0
                                        0
                                                  0 0.000000e+00
                                                                         0
##
          Otu01951 Otu01952
                                 Otu01953
                                              Otu01954 Otu01955
                                                                      Otu01956
## CSI002
                           0 1.362194e-05 0.000000e+00
                 0
                                                               0 2.724387e-05
## CSI013
                 0
                           0 0.000000e+00 0.000000e+00
                                                               0 0.00000e+00
## CSI023
                 0
                           0 0.000000e+00 0.000000e+00
                                                               0 0.000000e+00
## CSI034
                 0
                           0 1.894908e-05 0.000000e+00
                                                               0 4.358289e-04
```

```
## CSI045
                 0
                          0 0.000000e+00 0.000000e+00
                                                               0 0.00000e+00
                           0 3.918572e-04 8.620859e-04
## CST056
                 0
                                                               0 0.00000e+00
##
  CSI066
                 0
                           0 3.833694e-05 0.000000e+00
                                                               0 1.916847e-05
##
              Otu01957
                           Otu01958
                                         Otu01959 Otu01960
                                                                Ot:1101961
  CSI002 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0.0.000000e+00
  CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
  CSI034 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0.0.000000e+00
   CSI045 0.000000e+00 1.306037e-04 0.000000e+00
                                                          0 0.000000e+00
   CSI056 0.000000e+00 3.918572e-05 0.000000e+00
                                                          0 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00 5.750542e-05
                                                          0 0.00000e+00
##
              Otu01962
                           Otu01963
                                         Otu01964
                                                      Otu01965
                                                                    Otu01966
##
  CSI002 4.086581e-05 0.000000e+00 1.089755e-04 4.086581e-05 5.448775e-05
   CSI013 1.917484e-04 0.000000e+00 0.000000e+00 1.661820e-03 2.237065e-04
  CSI023 2.041025e-05 2.041025e-05 0.000000e+00 0.000000e+00 4.082049e-05
   CSI034 3.031853e-04 0.000000e+00 1.136945e-04 2.842363e-04 1.894908e-04
   CSI045 0.000000e+00 0.000000e+00 9.795279e-05 0.000000e+00 0.000000e+00
   CSI056 1.175572e-04 7.837144e-05 0.000000e+00 1.959286e-05 1.959286e-05
   CSI066 1.150108e-04 0.000000e+00 1.916847e-04 7.667389e-05 0.000000e+00
          Otu01967 Otu01968 Otu01969 Otu01970
                                                   Otu01971
                                                                 Ot:1101972
##
  CSI002
                 0
                           0
                                    0
                                             0 0.000000e+00 0.000000e+00
## CSI013
                 0
                           0
                                    0
                                             0 6.391614e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
## CSI023
                 0
                           0
                                    0
                           0
## CSI034
                 0
                                    0
                                             0 0.000000e+00 5.684725e-05
                           0
##
  CST045
                 0
                                    0
                                             0 0.000000e+00 0.000000e+00
  CSI056
                 0
                           0
                                    0
                                             0 0.000000e+00 5.877858e-05
  CSI066
                 0
                           0
                                    0
                                             0 0.000000e+00 0.000000e+00
##
              Otu01973
                           Otu01974 Otu01975 Otu01976
                                                            Otu01977
  CSI002 0.000000e+00 4.086581e-05
                                            0
                                                     0 0.00000e+00
  CSI013 0.000000e+00 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI023 0.000000e+00 2.041025e-05
                                            0
                                                     0 0.00000e+00
  CSI034 1.894908e-05 9.474542e-05
                                            0
                                                     0.0.000000e+00
   CSI045 3.265093e-05 0.000000e+00
                                            0
                                                     0 0.00000e+00
  CSI056 0.000000e+00 0.000000e+00
                                            0
                                                     0 0.00000e+00
   CSI066 0.000000e+00 3.833694e-05
                                            0
                                                     0 0.00000e+00
              Otu01978 Otu01979
                                     Otu01980 Otu01981
##
                                                            Ot:1101982
## CSI002 2.315729e-04
                               0 6.810968e-05
                                                     0 4.086581e-05
## CSI013 0.000000e+00
                               0 3.195807e-05
                                                     0 1.246365e-03
  CSI023 8.164098e-05
                               0 2.041025e-05
                                                     0 4.082049e-05
## CSI034 0.000000e+00
                               0 1.136945e-04
                                                     0 1.894908e-04
  CSI045 0.000000e+00
                               0 3.265093e-05
                                                     0 0.00000e+00
  CSI056 0.000000e+00
                                                     0 0.00000e+00
                               0 2.155215e-04
  CSI066 0.000000e+00
                               0 0.00000e+00
                                                     0 0.00000e+00
##
              Otu01983 Otu01984 Otu01985
                                              Otu01986
                                                            Otu01987
  CSI002 0.000000e+00
                               0
                                        0 1.634632e-04 5.448775e-05
  CSI013 0.000000e+00
                               0
                                        0 2.237065e-04 6.391614e-05
  CSI023 0.000000e+00
                               0
                                        0 6.123074e-05 4.082049e-05
                               0
  CSI034 1.894908e-05
                                        0 1.326436e-04 2.084399e-04
  CSI045 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00
                               0
                                          1.959286e-05 2.155215e-04
                               0
                                          0.000000e+00 0.000000e+00
##
  CSI066 1.936016e-03
                                        0
##
              Otu01988 Otu01989 Otu01990
                                              Otu01991 Otu01992 Otu01993
## CSI002 1.362194e-05
                               0
                                        0 1.634632e-04
                                                               0
                                                                        0
## CSI013 9.587421e-05
                               0
                                        0 1.342239e-03
                                                               0
                                                                        0
```

```
## CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
  CSI034 5.684725e-05
                               0
                                                                 0
                                         0 1.705418e-04
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI056 7.837144e-05
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
##
   CSI066 1.150108e-04
                               0
                                           0.000000e+00
                                                                 0
                                                                          0
##
               Otu01994 Otu01995 Otu01996
                                               Otu01997 Otu01998 Otu01999
   CSI002 1.362194e-05
                               0
                                         0 0.000000000
                                                                 0
                                                                          0
## CSI013 0.000000e+00
                               0
                                         0.0000000000
                                                                 0
                                                                          0
   CSI023 0.000000e+00
                               0
                                         0 0.000000000
                                                                 0
                                                                          0
   CSI034 1.326436e-04
                                                                 0
                                                                          0
                               0
                                         0 0.000000000
   CSI045 3.265093e-05
                               0
                                         0 0.000000000
                                                                 0
                                                                          0
   CSI056 0.000000e+00
                               0
                                                                 0
                                                                          0
                                         0 0.000000000
   CSI066 0.000000e+00
                               0
                                         0.000000000
                                                                 0
                                                                          0
          Otu02000 Otu02001 Otu02002 Otu02003
##
                                                     Otu02004
                                                                   Otu02005
##
  CSI002
                  0
                           0
                                     0
                                              0 4.086581e-05 0.000000e+00
##
   CSI013
                  0
                           0
                                     0
                                              0 1.597904e-04 0.000000e+00
##
  CSI023
                  0
                           0
                                     0
                                              0 2.041025e-05 2.041025e-05
   CSI034
                  0
                           0
                                     0
                                              0 4.737271e-04 0.000000e+00
   CSI045
                           0
                                              0 0.000000e+00 0.000000e+00
##
                  0
                                     0
##
   CSI056
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
##
   CST066
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
##
               Otu02006
                                                    Otu02009 Otu02010 Otu02011
                            Ot1102007 Ot1102008
  CSI002 0.000000e+00 6.810968e-05
                                                                     0
                                                                               0
##
                                             0 5.448775e-05
   CSI013 3.195807e-05 6.391614e-05
                                             0 1.278323e-04
                                                                     0
                                                                               0
   CSI023 0.000000e+00 6.123074e-05
                                             0 2.041025e-05
                                                                     0
                                                                               0
   CSI034 0.000000e+00 3.789817e-04
                                             0 2.842363e-04
                                                                     0
                                                                              0
   CSI045 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                     0
                                                                              0
                                                                     0
   CSI056 1.959286e-05 3.918572e-05
                                             0 1.959286e-05
                                                                               0
   CSI066 9.584236e-05 0.000000e+00
                                             0 0.000000e+00
                                                                     0
##
##
          0tu02012
                        Otu02013 Otu02014
                                                Otu02015 Otu02016 Otu02017
##
  CSI002
                  0 0.00000e+00
                                         0 1.770852e-04
                                                                 0
                                                                          0
##
   CSI013
                  0 0.000000e+00
                                         0 2.876226e-04
                                                                 0
                                                                          0
   CSI023
                  0 0.000000e+00
                                         0 4.082049e-05
                                                                 0
                                                                          0
                                                                 0
                                                                          0
##
   CSI034
                  0 0.00000e+00
                                         0 2.463381e-04
   CSI045
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                          0
##
                                         0 3.918572e-05
                                                                 0
                                                                          0
##
   CST056
                  0 1.959286e-05
##
   CSI066
                  0 3.066955e-04
                                         0 0.00000e+00
                                                                 0
                                                                          0
##
               Otu02018 Otu02019
                                      Otu02020 Otu02021
                                                             Otu02022 Otu02023
   CSI002 2.724387e-05
                               0 0.000000e+00
                                                       0 0.00000e+00
                                                                               0
                                                                               0
##
   CSI013 3.195807e-05
                               0 0.00000e+00
                                                       0 0.000000e+00
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0 2.041025e-05
                                                                               0
   CSI034 1.894908e-05
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI045 2.612074e-04
                               0 3.265093e-04
                                                       0 0.00000e+00
                                                                               0
   CSI056 1.959286e-05
                               0 1.959286e-05
                                                       0 0.00000e+00
                                                                               0
##
   CSI066 2.875271e-04
                               0 0.00000e+00
                                                       0 0.00000e+00
##
          Otu02024
                        Otu02025
                                      Otu02026 Otu02027 Otu02028 Otu02029
##
   CSI002
                  0 0.000000e+00 1.362194e-05
                                                       0
                                                                 0
                                                                          0
   CSI013
                                                       0
                                                                 0
                                                                          0
##
                  0 0.000000e+00 0.000000e+00
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                          0
##
   CSI034
                   0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                          0
                    1.306037e-04 0.000000e+00
                                                       0
                                                                 0
                                                                          0
##
   CSI045
                                                                 0
##
  CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                          0
                  0 0.000000e+00 0.000000e+00
## CSI066
                                                       0
                                                                 0
                                                                          0
##
          Otu02030
                        0tu02031
                                      Otu02032 Otu02033 Otu02034 Otu02035
```

```
## CSI002
                  0 4.767678e-04 0.0001225974
                                                       0
                                                                 0
                                                                          0
  CST013
                  0 2.876226e-04 0.0000000000
                                                                 0
##
                                                       0
                                                                          0
  CSI023
                  0 2.041025e-05 0.0000000000
                                                       0
                                                                 0
                                                                          0
  CSI034
                  0 3.600326e-04 0.0000000000
                                                       Λ
                                                                 0
                                                                          0
##
##
   CSI045
                  0 0.000000e+00 0.0000000000
                                                       0
                                                                 0
                                                                          0
                  0 0.000000e+00 0.0000000000
                                                                 0
                                                                          0
##
   CSI056
                                                       Ω
                  0 0.000000e+00 0.0000000000
##
   CSI066
                                                                 0
                                                                           0
                                                         Otu02040 Otu02041
##
          Otu02036 Otu02037
                                  Otu02038 Otu02039
## CSI002
                  Λ
                           0 2.724387e-05
                                                   0 0.00000e+00
                                                                          0
                                                                          0
##
  CSI013
                  0
                           0 3.195807e-05
                                                   0 0.00000e+00
  CSI023
                  0
                           0 0.00000e+00
                                                    0.000000e+00
                                                                          0
                  0
                                                                          0
##
  CSI034
                           0 4.737271e-04
                                                   0 0.00000e+00
##
   CSI045
                  0
                           0 0.000000e+00
                                                    0.000000e+00
                                                                          0
   CSI056
                                                   0 0.00000e+00
                                                                          0
##
                  0
                           0 0.000000e+00
   CSI066
                           0 0.000000e+00
                                                   0 0.000000e+00
                                                                          0
##
                  0
##
               Otu02042 Otu02043
                                      Otu02044 Otu02045
                                                              Otu02046 Otu02047
   CSI002 0.000000e+00
##
                                0 2.724387e-05
                                                       0 9.535356e-05
                                                                               0
   CSI013 0.000000e+00
                                0 3.195807e-05
                                                       0 1.278323e-04
                                                                               0
   CSI023 0.000000e+00
                                                       0 6.123074e-05
                                0 0.00000e+00
                                                                               0
   CSI034 0.000000e+00
                                0 3.789817e-05
                                                       0 4.358289e-04
                                                                               0
##
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI056 6.269715e-04
                                0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
##
  CSI066 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
               Otu02048 Otu02049 Otu02050 Otu02051 Otu02052 Otu02053
##
## CSI002 4.086581e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI013 9.587421e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                         0
                                                   0
                                                             0
   CSI034 1.326436e-04
                                0
                                                                      0
                                0
                                         0
                                                   0
   CSI045 0.000000e+00
                                                             0
                                                                      0
   CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
               Otu02054 Otu02055 Otu02056 Otu02057
                                                         Otu02058 Otu02059
   CSI002 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
   CSI013 0.000000e+00
                                         0
                                                                          0
                                0
                                                   0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
   CSI034 0.000000e+00
                                0
                                         0
                                                                          0
                                                    1.894908e-05
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
  CSI056 0.000000e+00
                                0
                                         0
                                                   0 5.877858e-05
                                                                          0
   CSI066 0.000000e+00
                                         0
                                                   0 1.916847e-05
##
                                                                          0
          Otu02060 Otu02061
##
                                                Otu02063
                                  Ot:1102062
                                                              Ot:1102064
                           0 5.448775e-05 6.810968e-05 0.000000e+00
## CSI002
                  0
## CSI013
                  0
                           0 2.876226e-04 9.587421e-05 3.195807e-05
  CSI023
                  0
                           0 8.164098e-05 0.000000e+00 0.000000e+00
                  0
   CSI034
                           0 1.326436e-04 3.789817e-04 5.684725e-05
##
  CSI045
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI056
                           0 1.959286e-05 3.918572e-05 0.000000e+00
                  0
##
   CSI066
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
               Otu02065 Otu02066 Otu02067 Otu02068
##
                                                         Otu02069 Otu02070
  CSI002 1.362194e-05
                                0
                                         0
                                                   0 1.362194e-04
                                                                          0
   CSI013 0.000000e+00
                                0
                                         0
                                                   0 8.628679e-04
                                                                          0
                                0
                                         0
                                                                          0
   CSI023 0.000000e+00
                                                   0 0.00000e+00
## CSI034 0.000000e+00
                                0
                                         0
                                                   0 1.515927e-04
                                                                          0
## CSI045 0.000000e+00
                                0
                                         0
                                                   0 1.632546e-04
                                                                          0
## CSI056 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
```

```
## CSI066 0.000000e+00
                               0
                                                  0 1.916847e-05
          Otu02071 Otu02072 Otu02073
##
                                          Otu02074 Otu02075
                                                                  Ot:1102076
                                    0 0.000000000
## CSI002
                           0
                                                           0 0.00000e+00
## CSI013
                           0
                                    0.000000000
                                                           0 0.00000e+00
                 0
##
  CSI023
                 0
                           0
                                    0 0.0000000000
                                                           0 0.00000e+00
                           0
  CSI034
                 0
                                    0 0.000000000
                                                           0.000000e+00
##
                           0
  CSI045
                 0
                                    0 0.000000000
                                                           0 0.00000e+00
## CSI056
                 0
                           0
                                    0 0.000000000
                                                           0 1.959286e-05
## CSI066
                 0
                           0
                                    0 0.0005750542
                                                           0 0.00000e+00
##
              Otu02077
                            Otu02078
                                         Otu02079
                                                       Otu02080 Otu02081
  CSI002 0.000000e+00 6.810968e-05 1.362194e-05 0.000000e+00
   CSI013 3.195807e-05 6.072033e-04 0.000000e+00 0.000000e+00
                                                                        0
   CSI023 0.000000e+00 4.082049e-05 6.939484e-04 0.000000e+00
                                                                        0
   CSI034 7.579634e-05 4.547780e-04 3.789817e-05 3.789817e-05
                                                                        0
   CSIO45 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 1.341793e-04
                                                                        0
##
          0tu02082
                        Otu02083
                                     Otu02084
                                                   Otu02085 Otu02086 Otu02087
## CSI002
                 0 0.000000000 0.000000e+00 2.588168e-04
                                                                    0
                                                                             0
## CSI013
                 0 0.000000000 0.000000e+00 0.000000e+00
                                                                    0
                                                                             0
##
  CSI023
                 0 0.000000000 0.000000e+00 2.041025e-05
                                                                    0
                                                                             0
                  0 0.000000000 0.000000e+00 0.000000e+00
                                                                    0
  CST034
                                                                             0
                 0 0.0001306037 3.265093e-04 6.530186e-05
## CST045
                                                                    0
                                                                             0
                  0 0.0000979643 3.918572e-05 0.000000e+00
  CSI056
                                                                    0
                                                                             0
##
  CSI066
                 0 0.0007859073 7.667389e-05 0.000000e+00
                                                                    0
                                                                             0
##
          Otu02088
                        Otu02089
                                     Otu02090 Otu02091 Otu02092 Otu02093
## CSI002
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                               0
                                                                         0
                                                                0
  CSI013
                 0 3.195807e-05 9.587421e-05
                                                      0
                                                                         0
  CSI023
                                                                0
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                         0
  CSI034
                 0 1.894908e-05 7.579634e-05
                                                      0
                                                                0
                                                                         0
##
  CSI045
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                         0
##
   CSI056
                 0 0.000000e+00 3.918572e-05
                                                      Λ
                                                                0
                                                                         0
##
   CSI066
                 0 1.916847e-05 5.750542e-05
                                                                0
                                                                         0
          Otu02094
##
                        Otu02095 Otu02096 Otu02097
                                                        Otu02098 Otu02099
   CSI002
                 0 0.000000000
                                        0
                                                  0 1.362194e-05
##
                                                                         0
  CSI013
                                        0
##
                 0 0.000000000
                                                  0 3.195807e-05
                                                                         0
## CSI023
                 0 0.000000000
                                        0
                                                  0 8.164098e-05
                                                                         0
## CSI034
                 0 0.0004926762
                                        Λ
                                                  0 3.789817e-05
                                                                         0
                                        0
                                                  0 0.00000e+00
                                                                         0
   CST045
                 0 0.000000000
                                        0
                                                                         0
##
  CST056
                 0 0.000000000
                                                  0.000000e+00
   CST066
                 0 0.000000000
                                        0
                                                  0 0.00000e+00
##
              Otu02100 Otu02101 Otu02102
                                               Otu02103
                                                            0 \pm 1102104 0 \pm 1102105
   CSI002 2.724387e-04
                               0
                                        0 4.086581e-05 5.448775e-05
                                                                             0
   CSI013 1.917484e-04
                               0
                                        0 1.278323e-04 9.587421e-05
                                                                             0
   CSI023 0.000000e+00
                               0
                                        0 0.000000e+00 4.082049e-05
                                                                             0
                                        0 4.547780e-04 1.705418e-04
  CSI034 1.894908e-04
                               0
                                                                             0
   CSI045 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
   CSI056 0.000000e+00
                               0
                                        0 0.000000e+00 1.959286e-05
                                                                             0
##
   CSI066 0.000000e+00
                               0
                                        0
                                          0.000000e+00 0.000000e+00
                                                                             0
##
          Otu02106
                        Otu02107 Otu02108
                                               Otu02109
                                                            Otu02110 Otu02111
## CSI002
                 0 1.498413e-04
                                        0 0.000000e+00 0.000000e+00
                                                                             0
## CSI013
                 0 1.917484e-04
                                        0 3.195807e-05 0.000000e+00
                                                                             0
## CSI023
                 0 0.00000e+00
                                        0 0.000000e+00 0.000000e+00
                                                                             0
## CSI034
                 0 1.894908e-04
                                        0 0.000000e+00 0.000000e+00
                                                                             0
```

```
## CSI045
                 0 0.00000e+00
                                        0 0.000000e+00 0.000000e+00
                                                                             0
                 0 0.000000e+00
                                        0 0.000000e+00 1.959286e-05
  CST056
                                                                             0
                                        0 0.000000e+00 0.000000e+00
   CSI066
                 0 0.00000e+00
                                                                             0
##
                            Otu02113 Otu02114
                                                   Otu02115 Otu02116 Otu02117
              Ot:1102112
   CSI002 0.000000e+00 1.362194e-05
                                            0 0.000000e+00
                                                                    0
                                                                             0
  CSI013 1.278323e-04 6.391614e-05
                                                                    0
                                            0 0.00000e+00
                                                                             0
   CSI023 0.000000e+00 0.000000e+00
                                            0 2.041025e-05
                                                                    0
                                                                             0
## CSI034 0.000000e+00 3.031853e-04
                                            0 5.684725e-05
                                                                    0
                                                                             0
   CSI045 0.000000e+00 4.244621e-04
                                            0 0.000000e+00
                                                                    0
                                                                             Λ
                                                                    Λ
   CSI056 1.959286e-05 1.959286e-05
                                            0 5.877858e-05
                                                                             0
   CSI066 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                    0
                                                                             0
          Otu02118 Otu02119
##
                                 Otu02120 Otu02121
                                                        Otu02122
                                                                      Otu02123
##
  CSI002
                 0
                           0 0.000000e+00
                                                  0 0.000000000 0.000000e+00
## CSI013
                 0
                           0 0.000000e+00
                                                  0 0.000000000 0.000000e+00
## CSI023
                 0
                           0 0.000000e+00
                                                  0 0.000000000 0.000000e+00
## CSI034
                 0
                           0 1.894908e-05
                                                  0 0.000000000 0.000000e+00
                 0
                                                  0 0.000000000 6.530186e-05
##
  CSI045
                           0 0.00000e+00
   CSI056
                 0
                           0 7.837144e-05
                                                  0 0.000000000 0.000000e+00
                                                  0 0.000000000 0.000000e+00
##
   CST066
                 0
                           0 0.000000e+00
          Otu02124 Otu02125 Otu02126 Otu02127 Otu02128 Otu02129
                                                                       Otu02130
##
  CSI002
                 0
                           0
                                    0
                                              0
                                                       Λ
                                                                0 0.00000e+00
## CSI013
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.000000e+00
## CSI023
                           0
                 0
                                    0
                                              0
                                                       0
                                                                 0.000000e+00
                           0
  CSI034
                 0
                                    0
                                              0
                                                       0
                                                                 0 0.00000e+00
                 0
                           0
                                    0
                                              0
                                                       0
##
  CST045
                                                                 0 0.00000e+00
   CSI056
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 1.371500e-04
   CSI066
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.00000e+00
##
              Otu02131 Otu02132
                                     Otu02133 Otu02134 Otu02135
                                                                      Otu02136
   CSI002 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0 0.00000e+00
   CSI013 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
   CSI023 0.000000e+00
                               0 2.041025e-05
                                                      0
                                                               0 0.000000e+00
   CSI034 0.000000e+00
                               0 1.894908e-05
                                                      0
                                                               0 0.000000e+00
   CSI045 6.530186e-05
                               0 0.00000e+00
                                                      0
                                                               0 3.265093e-05
                                                      0
   CSI056 2.938929e-04
                               0 0.00000e+00
                                                               0 9.796430e-05
   CSI066 1.916847e-05
                               0 1.150108e-04
                                                               0 0.00000e+00
                                 Otu02139 Otu02140
          Otu02137 Otu02138
                                                        Otu02141
##
                                                                      Ot:1102142
## CSI002
                 0
                           0 0.000000000
                                                  0 0.000000e+00 0.0000000000
## CSI013
                 Ω
                           0 0.000000000
                                                  0 3.195807e-05 0.0000000000
                           0 0.0000000000
## CSI023
                 0
                                                  0 0.000000e+00 0.0000000000
                 0
                                                  0 3.789817e-05 0.0000000000
##
  CST034
                           0 0.000000000
                 0
   CSI045
                           0 0.0001959056
                                                  0 6.530186e-05 0.0000000000
                 0
                                                  0 5.877858e-05 0.0001763357
##
  CSI056
                           0.000000000
##
   CST066
                 0
                           0 0.000000000
                                                  0 0.000000e+00 0.0000000000
              Otu02143 Otu02144 Otu02145
                                              Otu02146 Otu02147 Otu02148
##
   CSI002 2.724387e-05
                               0
                                        0 1.089755e-04
                                                               0
                                                                         0
  CSI013 0.000000e+00
                               0
                                                               0
                                                                         0
                                        0 9.267841e-04
   CSI023 0.000000e+00
                               0
                                        0 0.00000e+00
                                                               0
                                                                         0
                               0
                                                               0
                                                                         0
   CSI034 1.894908e-05
                                        0 1.136945e-04
   CSI045 0.000000e+00
                               0
                                        0 0.00000e+00
                                                               0
                                                                         0
   CSI056 0.000000e+00
                               0
                                        0 1.175572e-04
                                                               0
                                                                         0
                               0
                                                               0
##
   CSI066 0.000000e+00
                                        0 3.833694e-05
                                                                         0
              Otu02149 Otu02150
                                     Otu02151 Otu02152 Otu02153
                                                                      0tu02154
## CSI002 0.0001498413
                               0 4.086581e-05
                                                      0
                                                               0 1.362194e-05
## CSI013 0.0000000000
                               0 0.00000e+00
                                                      0
                                                               0 1.597904e-04
```

```
## CSI023 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
   CSI034 0.0001326436
                                                       0
                               0 0.00000e+00
                                                                0 2.463381e-04
   CSI045 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
   CSI056 0.0000000000
                               0 1.959286e-05
                                                       Λ
                                                                0 0.000000e+00
##
   CSI066 0.0000000000
                               0 0.000000e+00
                                                       0
                                                                0 0.000000e+00
                                                             Otu02159 Otu02160
##
          Ot:1102155
                        Otu02156 Otu02157
                                               Otu02158
  CSI002
                  0 1.362194e-05
                                         0 0.000000e+00 8.173162e-05
                                                                              0
## CSI013
                  0.000000e+00
                                         0 0.000000e+00 4.154549e-04
                                                                              0
   CSI023
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
##
   CSI034
                  0 1.894908e-05
                                         0 1.894908e-05 0.000000e+00
                                                                              0
   CSI045
                  0 6.530186e-05
                                         0 0.000000e+00 0.000000e+00
                                                                              0
                                         0 5.877858e-05 0.000000e+00
##
   CSI056
                  0 3.918572e-05
                                                                              0
##
   CSI066
                  0 3.066955e-04
                                         0 5.750542e-05 3.833694e-05
                                                                              0
##
              Otu02161 Otu02162
                                      Otu02163 Otu02164 Otu02165 Otu02166
                               0 0.000000e+00
                                                       0
                                                                0
                                                                          0
##
   CSI002 6.810968e-05
   CSI013 6.391614e-04
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
                                                                0
                                                                          0
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0
   CSI034 7.579634e-05
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
                                                                0
                                                                          0
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                       0
   CSI056 0.000000e+00
                               0 1.959286e-05
                                                       0
                                                                0
                                                                          0
##
   CSI066 0.000000e+00
                               0 1.916847e-05
                                                       0
                                                                0
                                                                          0
##
                                          Otu02169 Otu02170 Otu02171 Otu02172
              Ot:1102167
                            Ot:1102168
   CSI002 0.000000e+00 0.000000e+00 1.362194e-05
                                                           0
                                                                     0
                                                                              0
   CSI013 2.237065e-04 0.000000e+00 1.278323e-04
                                                                     0
                                                           0
                                                                              0
   CSI023 4.082049e-05 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI034 0.000000e+00 0.000000e+00 1.894908e-05
                                                           Λ
                                                                     0
                                                                              0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                              0
   CSI056 3.918572e-05 0.000000e+00 5.877858e-05
                                                           0
                                                                     0
                                                                              0
   CSI066 0.000000e+00 1.916847e-05 0.000000e+00
                                                           0
                                                                     0
                                                                              0
##
##
              Otu02173 Otu02174 Otu02175 Otu02176 Otu02177
                                                                   Otu02178
##
   CSI002 5.448775e-05
                               0
                                         0
                                                   0
                                                            0
                                                              0.000000e+00
   CSI013 2.556646e-04
                               0
                                         0
                                                   0
                                                            0
                                                              0.000000e+00
   CSI023 2.041025e-05
                               0
                                         0
                                                   0
                                                              0.000000e+00
                               0
                                         0
                                                   0
   CSI034 0.000000e+00
                                                              0.000000e+00
   CSI045 1.632546e-04
                               0
                                         0
                                                   0
                                                              0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                              0.000000e+00
##
##
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
##
          Otu02179
                        Otu02180 Otu02181
                                               Otu02182 Otu02183
                                                                       Otu02184
                  0 0.000000e+00
## CSI002
                                         0 0.0005040117
                                                                0 5.448775e-05
  CSI013
##
                  0 9.587421e-05
                                         0 0.000000000
                                                                0 3.195807e-05
   CSI023
                  0 0.000000e+00
                                         0 0.000000000
                                                                0 2.041025e-05
  CSI034
                  0 1.515927e-04
                                                                0 1.515927e-04
##
                                         0 0.0003789817
##
   CSI045
                  0
                   0.000000e+00
                                         0 0.000000000
                                                                0 6.530186e-05
##
   CSI056
                   0.000000e+00
                                          0.000000000
                                                                0 0.00000e+00
                                         0
##
   CSI066
                   7.667389e-05
                                         0 0.000000000
                                                                0 1.341793e-04
          Otu02185
                   Otu02186
                                 Otu02187 Otu02188 Otu02189
                                                                   Otu02190
##
##
  CSI002
                  0
                           0 3.541704e-04
                                                   0
                                                            0 0.0001770852
##
   CSI013
                  0
                           0 0.00000e+00
                                                   0
                                                            0 0.000000000
   CSI023
                  0
                           0 4.082049e-05
                                                   0
                                                              0.000000000
##
   CSI034
                  0
                             0.000000e+00
                                                   0
                                                              0.0002652872
                  0
                                                   0
##
   CSI045
                           0
                             6.530186e-05
                                                              0.0000000000
                                                            0
##
  CSI056
                  0
                           0 0.00000e+00
                                                   0
                                                            0 0.000000000
## CSI066
                  0
                           0 0.000000e+00
                                                   0
                                                            0.00000000000
##
              Otu02191 Otu02192 Otu02193
                                               Otu02194 Otu02195 Otu02196
```

```
## CSI002 1.362194e-05
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CSI023 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                                                  0
  CSI034 3.979308e-04
                                0
                                          0 0.00000e+00
                                                                            0
   CSI045 0.000000e+00
                                0
                                          0 9.142260e-04
                                                                  0
                                                                            0
   CSI056 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
   CSI066 0.000000e+00
                                                                  0
                                          0 0.00000e+00
           Otu02197 Otu02198
##
                                  Otu02199
                                                Otu02200 Otu02201 Otu02202
## CSI002
                  0
                            0 2.724387e-05 1.362194e-05
                                                                  0
                                                                            0
## CSI013
                                                                  0
                                                                            0
                  0
                            0 3.195807e-05 0.000000e+00
## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
## CSI034
                  0
                            0 0.000000e+00 3.789817e-05
                                                                            0
##
  CSI045
                  0
                            0 0.000000e+00 3.265093e-05
                                                                  0
                                                                            0
                  0
                            0 0.000000e+00 2.155215e-04
                                                                  0
                                                                            0
## CSI056
##
  CSI066
                  0
                            0 1.916847e-05 0.000000e+00
                                                                  0
                                                                            0
##
           Otu02203 Otu02204
                              Otu02205 Otu02206
                                                      Otu02207 Otu02208 Otu02209
## CSI002
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                  0
                                                                                 0
##
  CSI013
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                                 0
                                                                       0
## CSI034
                  0
                            0
                                      0
                                               0 3.789817e-05
                                                                       0
                                                                                 0
##
  CSI045
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI056
                            0
                                               0 1.959286e-05
                                                                                 0
## CSI066
                  0
                            0
                                      0
                                                                                 O
                                               0 0.00000e+00
                    Otu02211 Otu02212 Otu02213 Otu02214 Otu02215
##
          Otu02210
                                                                          Otu02216
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
  CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
                            0
                                               0
                                                         0
##
  CSI034
                  0
                                      0
                                                                   0 0.00000e+00
                            0
                                               0
## CSI045
                  0
                                      0
                                                         0
                                                                   0 0.000000e+00
## CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
##
  CSI066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
          Otu02217 Otu02218 Otu02219 Otu02220
                                                      Otu02221
                                                                    Otu02222
## CSI002
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
  CSI013
                  0
                            0
                                               0 0.000000e+00 4.154549e-04
##
                                      0
  CSI023
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
  CSI034
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
##
## CSI045
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
## CSI056
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
   CSI066
                  0
                            0
                                      0
                                               0 0.000000e+00 3.833694e-05
##
##
               Otu02223 Otu02224 Otu02225
                                                Otu02226 Otu02227 Otu02228
  CSI002 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                            0
## CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                                                  0
   CSI023 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                            0
                                0
                                                                  0
                                                                            Λ
   CSI034 0.000000e+00
                                          0 0.00000e+00
   CSI045 3.265093e-05
                                0
                                                                  0
                                          0 6.530186e-05
                                                                            0
  CSI056 0.000000e+00
                                0
                                          0 7.837144e-05
                                                                  0
                                                                            0
##
   CSI066 1.916847e-05
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
           Otu02229 Otu02230
                                  Otu02231 Otu02232 Otu02233 Otu02234 Otu02235
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
## CSI013
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
                            0 0.000000e+00
## CSI023
                  0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI034
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI045
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI056
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
```

```
## CSI066
                          0 1.916847e-05
                                                           0
                                                                    0
##
              Otu02236 Otu02237 Otu02238
                                              Otu02239 Otu02240 Otu02241
## CSI002 1.362194e-05
                               0
                                        0 1.498413e-04
                                                               0
                                                                        0
## CSI013 3.195807e-04
                               0
                                        0 3.195807e-05
                                                               0
                                                                        Λ
## CSI023 0.000000e+00
                               0
                                        0 0.000000e+00
                                                               0
                                                                        0
## CSI034 3.600326e-04
                               0
                                        0 2.652872e-04
                                                               Ω
                                                                        0
                               0
## CSI045 0.000000e+00
                                        0 0.000000e+00
                                                               0
## CSI056 1.959286e-05
                               0
                                        0.000000e+00
                                                               0
                                                                        0
  CSI066 3.833694e-05
                               0
                                        0 0.000000e+00
                                                               Ω
                                                                        0
                                                  Otu02245 Otu02246
##
          Otu02242
                       Otu02243
                                     Otu02244
## CSI002
                 0 0.000000e+00 2.315729e-04 0.000000e+00
                                                                   0
## CSI013
                 0 0.000000e+00 1.917484e-04 0.000000e+00
                                                                   0
## CSI023
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
## CSI034
                 0 0.000000e+00 1.515927e-04 0.000000e+00
                                                                   0
## CSI045
                 0 0.000000e+00 0.000000e+00 2.285565e-04
                                                                   0
## CSI056
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
                 0 3.833694e-05 0.000000e+00 9.584236e-05
                                                                   0
##
  CSI066
##
              0tu02247
                            Otu02248 Otu02249
                                                  Otu02250
                                                                0tu02251
## CSI002 0.000000e+00 1.362194e-04
                                            0 1.362194e-05 0.0000000000
## CSI013 0.000000e+00 1.917484e-04
                                            0 3.195807e-05 0.0000000000
## CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00 0.000000000
## CSI034 0.000000e+00 5.684725e-05
                                            0 5.684725e-05 0.0000000000
                                            0 0.00000e+00 0.000000000
## CSI045 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00 0.000000e+00
                                            0 1.959286e-04 0.0000000000
  CSI066 3.833694e-05 0.000000e+00
                                            0 3.833694e-05 0.0000000000
          0tu02252
                       Otu02253
                                     Otu02254 Otu02255
                                                            0tu02256
## CSI002
                 0 8.173162e-05 4.086581e-05
                                                     0 2.724387e-05
## CSI013
                 0 1.917484e-04 9.587421e-05
                                                     0 0.00000e+00
## CSI023
                 0 6.123074e-05 0.000000e+00
                                                     0 0.000000e+00
## CSI034
                 0 1.705418e-04 9.474542e-05
                                                     0 3.789817e-04
## CSI045
                 0 0.000000e+00 0.000000e+00
                                                     0 0.000000e+00
  CSI056
                 0 0.000000e+00 0.000000e+00
                                                     0 1.959286e-05
   CSI066
                 0 0.000000e+00 0.000000e+00
                                                     0 0.00000e+00
              Otu02257 Otu02258 Otu02259 Otu02260
##
                                                       Otu02261 Otu02262
## CSI002 0.000000e+00
                               0
                                        0
                                                 0 1.362194e-05
                                                                        0
## CSI013 0.000000e+00
                               0
                                        0
                                                 0 0.000000e+00
                                                                        0
## CSI023 0.000000e+00
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
## CSI034 1.894908e-05
                               0
                                        Λ
                                                 0 0.000000e+00
                                                                        0
  CSI045 0.000000e+00
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
  CSI056 0.000000e+00
                                        Λ
                                                                        0
                               0
                                                 0.000000e+00
                               0
                                        0
  CSI066 3.833694e-05
                                                 0 5.750542e-05
                       Otu02264 Otu02265 Otu02266 Otu02267 Otu02268 Otu02269
##
          Ot:1102263
## CSI002
                 0 4.086581e-05
                                        0
                                                 Ω
                                                           0
                                                                    0
                                                                              0
                                                           0
                                                                    0
                                                                             0
## CSI013
                 0 3.195807e-05
                                        0
                                                 0
## CSI023
                 0 0.00000e+00
                                        0
                                                 0
                                                           0
                                                                    0
                                                                              0
## CSI034
                                        0
                                                 0
                                                           0
                 0 0.00000e+00
                                                                    0
                                                                             0
  CSI045
                 0 1.306037e-04
                                        0
                                                 0
                                                           0
                                                                    0
                                                                             0
                                        0
                                                 0
  CSI056
                 0 5.877858e-05
                                                           0
                                                                             0
  CST066
                 0 1 916847e-05
                                        0
                                                           0
                                                                    0
                                                                             0
##
              Otu02270 Otu02271
                                     Otu02272
                                                  Otu02273 Otu02274
## CSI002 2.179510e-04
                               0 0.000000e+00 0.000000e+00
                                                                   0
## CSI013 9.587421e-05
                               0 0.000000e+00 0.000000e+00
                                                                   0
## CSI023 0.000000e+00
                              0 2.041025e-05 0.000000e+00
                                                                   0
## CSI034 3.789817e-04
                              0 0.000000e+00 0.000000e+00
                                                                   0
```

```
## CSI045 0.000000e+00
                             0 0.000000e+00 0.000000e+00
                                                                0
  CSI056 0.000000e+00
                             0 0.000000e+00 2.743000e-04
                                                                0
  CSI066 0.000000e+00
                             0 0.000000e+00 3.066955e-04
                                                                0
##
              Otu02275 Otu02276
                                   Otu02277 Otu02278 Otu02279 Otu02280
  CSI002 9.535356e-05
                             0 4.086581e-05
                                                   0
                                                            0
                                                                     0
                                                   0
                                                            0
                                                                     0
  CSI013 6.391614e-05
                             0 0.00000e+00
                                                            0
  CSI023 0.000000e+00
                             0 0.00000e+00
                                                   0
                                                                     0
## CSI034 7.579634e-05
                             0 0.00000e+00
                                                   0
                                                            0
                                                                     0
  CSI045 0.000000e+00
                             0 3.265093e-05
                                                   0
                                                            0
                                                                     0
                                                   Λ
                                                            Λ
                                                                     0
   CSI056 0.000000e+00
                             0 0.00000e+00
   CSI066 5.750542e-05
                             0 9.584236e-05
                                                   0
                                                            0
                                                                     0
##
          Otu02281 Otu02282
                               Otu02283
                                            Otu02284
                                                         Otu02285
##
  CSI002
                 0
                          0 2.724387e-05 6.810968e-05 0.0000000000
## CSI013
                 0
                          0 6.391614e-05 6.391614e-05 0.0000000000
## CSI023
                 0
                          ## CSI034
                 0
                          0 2.842363e-04 1.894908e-05 0.0000000000
                 0
                          ##
  CSI045
  CSI056
                 0
                           0.000000e+00 0.000000e+00 0.000000000
                          ##
  CST066
                 0
##
              Otu02286 Otu02287
                                   Otu02288
                                                Otu02289 Otu02290
##
  CSI002 0.000000e+00
                             0 0.000000e+00 0.000000e+00
                                                                0
  CSI013 0.000000e+00
                             0 0.000000e+00 0.000000e+00
                                                                0
                             0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                                                                0
                             0 0.000000e+00 1.894908e-05
  CSI034 0.000000e+00
                                                                0
  CSI045 3.265093e-05
                                                                0
                             0 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00
                             0 1.763357e-04 0.000000e+00
                                                                0
  CSI066 0.000000e+00
                             0 7.667389e-05 0.000000e+00
                                                                0
##
##
              Otu02291
                          Otu02292
                                       Otu02293 Otu02294
                                                             0tu02295
  CSI002 0.000000e+00 1.362194e-05 0.000000e+00
##
                                                       0 9.535356e-05
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                       0 1.917484e-04
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
   CSI034 0.000000e+00 1.894908e-05 3.789817e-05
                                                       0 1.326436e-04
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
  CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                       0 7.837144e-05
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
##
          Otu02296
                      Otu02297
                                   Otu02298
                                                Otu02299 Otu02300
##
## CSI002
                 0 1.907071e-04 0.000000e+00 0.000000e+00
                                                                0
## CSI013
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                0
  CSI023
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                0
                 0 1.894908e-05 0.000000e+00 0.000000e+00
                                                                0
##
  CST034
                 0 0.000000e+00 0.000000e+00 3.265093e-05
                                                                0
  CSI045
                 0 0.000000e+00 2.547072e-04 0.000000e+00
                                                                0
##
  CST056
##
   CST066
                 0 2.491901e-04 1.916847e-05 3.833694e-05
                                                                0
              Otu02301 Otu02302 Otu02303
                                            Otu02304 Otu02305 Otu02306
##
  CSI002 0.000000e+00
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
  CSI013 0.000000e+00
                             0
                                                            0
                                                                     0
                                      0 0.00000e+00
  CSI023 0.000000e+00
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
                                                            0
  CSI034 1.894908e-05
                             0
                                      0 0.00000e+00
                                                                     0
  CSI045 0.000000e+00
                             0
                                      0 0.000000e+00
                                                            0
                                                                     0
  CSI056 0.000000e+00
                             0
                                      0 0.00000e+00
                                                            0
                                                                     0
##
                             0
##
  CSI066 0.000000e+00
                                      0 1 916847e-05
                                                            0
                                                                     0
##
              Otu02307 Otu02308 Otu02309 Otu02310 Otu02311
                                                              0tu02312
## CSI002 1.362194e-05
                             0
                                      0
                                               0
                                                        0.000000e+00
## CSI013 1.278323e-04
                             0
                                      0
                                               0
                                                        0 0.00000e+00
```

```
## CSI023 0.000000e+00
                                0
                                                            0 0.00000e+00
                                                            0 0.000000e+00
  CSI034 2.273890e-04
                                         0
                                                   0
                                0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 2.285565e-04
   CSI056 0.000000e+00
                                         0
                                                   0
                                                            0 3.918572e-05
                                0
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                            0 1.150108e-04
               0tu02313
                            Otu02314 Otu02315
                                                    Otu02316 Otu02317 Otu02318
##
   CSI002 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                               0
  CSI013 6.391614e-05 1.917484e-04
                                             0.000000e+00
                                                                     0
                                                                               0
   CSI023 2.041025e-05 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                               O
   CSI034 7.579634e-05 9.474542e-05
                                             0 0.00000e+00
                                                                     0
                                                                               Λ
   CSI045 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                     0
                                                                               0
   CSI056 3.918572e-05 0.000000e+00
                                                                     0
                                                                               0
                                             0 7.837144e-05
   CSI066 1.916847e-05 0.000000e+00
                                             0 1.916847e-05
                                                                     0
                                                                               0
##
               Otu02319 Otu02320 Otu02321
                                                Otu02322 Otu02323
                                                                       0tu02324
   CSI002 0.000000e+00
                                0
                                                                 0 0.000000e+00
##
                                         0.0.000000e+00
   CSI013 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI034 0.000000e+00
                                0
                                         0 9.474542e-05
                                                                 0 0.00000e+00
   CSI045 3.265093e-05
                                0
                                         0 0.000000e+00
                                                                 0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 7.837144e-05
##
   CSI066 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0 0.000000e+00
          0tu02325
                        Otu02326 Otu02327 Otu02328 Otu02329 Otu02330 Otu02331
##
## CSI002
                                                   0
                                                            0
                  0.000000e+00
                                         0
                                                                      0
                                                                                Ω
                                                            0
                                                                                0
  CSI013
                  0 0.00000e+00
                                         0
                                                   0
                                                                      0
                                                                                0
## CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
   CSI034
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI045
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
##
   CSI056
                  0 3.918572e-05
                                                                      0
                                                                                0
                                                             0
                                         0
                                                   0
                                                                      0
                                                                                0
##
   CSI066
                  0 3.833694e-05
##
               Otu02332 Otu02333 Otu02334 Otu02335
                                                     Otu02336
                                                               Otu02337
                                                                        Otu02338
##
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                0
                                         0
                                                   0
                                                             0
                                                                                0
   CSI034 0.000000e+00
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI056 1.959286e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
               Otu02339 Otu02340
                                      Otu02341 Otu02342 Otu02343 Otu02344
                                0 1.362194e-05
  CSI002 8.173162e-05
                                                       0
                                                                 0
                                                                           0
                                                       0
                                                                 0
                                                                           0
##
   CSI013 1.278323e-04
                                0 9.587421e-05
   CSI023 0.000000e+00
                                                                 0
                                                                           0
                                0 0.00000e+00
                                                       0
  CSI034 2.842363e-04
                                0 2.084399e-04
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       Ω
                                                                           0
                                                                 Λ
   CSI056 0.000000e+00
                                0 1.959286e-05
                                                       Λ
                                                                           0
   CSI066 0.000000e+00
                                0 1.916847e-05
                                                                   Otu02350
##
          Otu02345 Otu02346 Otu02347
                                           Otu02348 Otu02349
## CSI002
                  0
                           0
                                     0 0.00000e+00
                                                             0 0.00000e+00
##
  CSI013
                  0
                           0
                                     0 0.00000e+00
                                                             0 0.00000e+00
                                     0 0.000000e+00
  CSI023
                  0
                           0
                                                            0 0.000000e+00
##
  CSI034
                  0
                           0
                                     0 1.894908e-05
                                                               1.894908e-05
                  0
                           0
##
  CSI045
                                     0 0.00000e+00
                                                             0.0.000000e+00
## CSI056
                  0
                           0
                                     0 0.000000e+00
                                                             0 0.00000e+00
## CSI066
                  0
                           0
                                     0 0.000000e+00
                                                            0.000000e+00
##
          Otu02351 Otu02352 Otu02353 Otu02354 Otu02355
                                                               Otu02356 Otu02357
```

```
## CSI002
                  0
                            0
                                                          0 0.00000e+00
                                                                                  0
  CSI013
                                                                                  0
##
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
                            0
                                                0
                                                                                  O
##
   CSI056
                  0
                                      0
                                                          0 7.837144e-05
##
   CSI066
                  0
                            0
                                      0
                                                          0 0.00000e+00
                                                                                  0
                         Otu02359 Otu02360
                                                 Otu02361 Otu02362
##
          Otu02358
                                                                         Otu02363
## CSI002
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.000000e+00
##
   CSI013
                    0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.000000e+00
   CSI023
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0 2.041025e-05
##
   CSI034
                    1.894908e-05
                                          0 0.00000e+00
                                                                  0 1.894908e-05
##
   CSI045
                    0.000000e+00
                                          0 2.285565e-04
                                                                  0 0.000000e+00
   CSI056
                                          0 0.00000e+00
##
                  0 0.000000e+00
                                                                  0 0.00000e+00
   CSI066
                  0 1.916847e-05
                                                                  0 5.750542e-05
##
                                          0 7.667389e-05
##
           Otu02364
                    Otu02365 Otu02366
                                            Otu02367 Otu02368 Otu02369
  CSI002
                            0
                                                              0
##
                  0
                                      0 0.000000e+00
                                                                        0
##
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                      0 0.000000e+00
  CSI023
                            0
                                                              0
##
                  0
                                                                        0
##
   CSI034
                  0
                            0
                                        0.00000e+00
                                                              0
                                                                        0
##
   CSI045
                  0
                            0
                                      0 6.530186e-05
                                                              Λ
                                                                        0
   CSI056
                            0
                                       1.959286e-05
                                                              0
                                                                        0
##
                            0
                                                              0
                                                                        0
##
  CSI066
                  0
                                      0 0.000000e+00
##
               Otu02370 Otu02371
                                       Otu02372 Otu02373 Otu02374 Otu02375
  CSI002 8.173162e-05
##
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
   CSI013 3.195807e-05
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI034 5.684725e-05
                                0 0.000000000
                                                        0
                                                                            0
                                                                  0
   CSI045 0.000000e+00
                                                        0
                                                                            0
                                0 0.000000000
   CSI056 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00
                                0 0.000000000
                                                        0
                                                                  0
                                                                            0
##
           Otu02376 Otu02377 Otu02378 Otu02379 Otu02380 Otu02381
                                                                          Otu02382
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
  CSI013
                            0
                                                          0
##
                  0
                                      0
                                                0
                                                                   0 0.00000e+00
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
                            0
                                                0
                                                          0
##
  CSI034
                  0
                                      0
                                                                   0 0.00000e+00
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 6.530186e-05
##
  CSI056
                  0
                            0
                                                0
                                                          0
                                                                   0 0.000000e+00
                                      0
                  0
                            0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
   CSI066
                                      0
##
           Otu02383 Otu02384
                                            Otu02386 Otu02387
                              Otu02385
                                                                     Ot:1102388
                            0
  CSI002
                  0
                                      0 1.089755e-04
                                                              0 4.086581e-05
## CSI013
                  0
                            0
                                        1.278323e-04
                                                              0 3.195807e-05
                                      0
##
  CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.00000e+00
                            0
                  0
                                       3.789817e-05
                                                              0 1.136945e-04
##
   CSI034
##
  CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0 2.612074e-04
## CSI056
                  0
                            0
                                                              0 7.837144e-05
                                        1.763357e-04
##
   CSI066
                  0
                            0
                                      0 0.00000e+00
                                                              0 0.00000e+00
##
           Otu02389 Otu02390
                                  Otu02391
                                                 Otu02392 Otu02393 Otu02394
## CSI002
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CSI013
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
  CSI023
## CSI034
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI045
                  0
                            0 2.285565e-04 0.000000e+00
                                                                  0
                                                                            0
## CSI056
                  0
                            0 7.837144e-05 0.000000e+00
                                                                  0
                                                                            0
```

```
## CSI066
                 0
                          0 5.750542e-05 0.000000e+00
                                                                         0
##
                       Otu02396 Otu02397 Otu02398
          Ot:1102395
                                                        Oti102399 Oti102400
                 0 0.000000e+00
## CSI002
                                        0
                                                 0 0.000000e+00
                                                                         0
                 0 6.391614e-05
  CSI013
                                        0
                                                  0 0.00000e+00
                                                                         Λ
## CSI023
                 0 0.000000e+00
                                        0
                                                  0 0.00000e+00
                                                                         0
                 0 0.000000e+00
                                        0
                                                                         0
## CST034
                                                  0 1.515927e-04
  CSI045
                 0 0.00000e+00
                                        0
                                                  0 6.530186e-05
## CSI056
                 0 0.00000e+00
                                        0
                                                 0 0.000000e+00
                                                                         0
##
  CSI066
                 0 0.000000e+00
                                        Λ
                                                  0 5.750542e-05
                                                                         Λ
##
          Otu02401 Otu02402
                                Otu02403 Otu02404 Otu02405 Otu02406 Otu02407
## CSI002
                 0
                           0 0.00000000
                                                0
                                                          0
                                                                   0
## CSI013
                 0
                           0.000000000
                                                0
                                                                   0
                                                          0
                                                                             0
## CSI023
                 0
                           0.000000000
                                                 0
                                                          0
                                                                   0
                                                                             0
                           0 0.000000000
## CSI034
                 0
                                                 0
                                                          0
                                                                   0
                                                                             0
  CSI045
                 0
                                                 0
                                                          0
                           0.000000000
                                                                   0
                                                                             0
## CSI056
                 0
                           0 0.000274300
                                                 0
                                                          0
                                                                   0
                 0
                                                 0
                                                          0
##
  CSI066
                           0 0.000000000
                                                                   0
                                                                             0
##
              Otu02408
                            Otu02409 Otu02410
                                                   Otu02411 Otu02412
## CSI002 0.000000e+00 0.000000e+00
                                            0 0.000000000
                                                                   0
## CSI013 6.391614e-05 0.000000e+00
                                            0 0.000000000
                                                                   0
  CSI023 2.041025e-05 0.000000e+00
                                            0 0.000000000
                                                                   0
  CSI034 7.579634e-05 1.894908e-05
                                            0.0000000000
                                                                   0
  CSI045 0.000000e+00 3.265093e-05
                                            0 0.000000000
                                                                   0
  CSI056 0.000000e+00 1.959286e-05
                                            0 0.0001959286
                                                                   0
  CSI066 5.750542e-05 1.916847e-05
                                            0 0.000000000
                                                                   0
              Otu02413 Otu02414 Otu02415 Otu02416
                                                        Otu02417
                                                                      0tu02418
## CSI002 0.000000e+00
                                        0
                                                 0 1.770852e-04 0.000000e+00
                               0
                                        0
  CSI013 0.000000e+00
                               0
                                                 0 1.278323e-04 0.000000e+00
  CSI023 0.000000e+00
                               0
                                        0
                                                  0 6.123074e-05 0.000000e+00
  CSI034 1.894908e-05
                               0
                                        0
                                                 0 1.136945e-04 0.000000e+00
  CSI045 3.265093e-05
                               0
                                        0
                                                 0 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00
                               0
                                        0
                                                 0 0.000000e+00 3.918572e-05
   CSI066 1.916847e-05
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
              Otu02419 Otu02420
                                     Otu02421
                                                   Otu02422 Otu02423
  CSI002 0.000000e+00
                               0 2.860607e-04 2.724387e-05
                                                                   0
  CSI013 0.000000e+00
                               0 9.587421e-05 6.391614e-05
                                                                   0
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
  CSI034 0.000000e+00
                               0 0.000000e+00 2.084399e-04
                                                                   0
  CSI045 3.265093e-05
                               0 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                   0
                               0 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
##
                            Otu02425 Otu02426 Otu02427
                                                            Otu02428 Otu02429
              0t_{11}02424
  CSI002 0.0000000000 4.086581e-05
                                            0
                                                      0 0.000000e+00
                                                                             0
                                            0
  CSI013 0.0000000000 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI023 0.0000000000 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
  CSI034 0.0000000000 7.579634e-05
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI045 0.0000000000 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                             0
                                            0
   CSI056 0.0000000000 7.837144e-05
                                                      0 1.371500e-04
                                                                             0
   CSI066 0.0001916847 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                                                             0
##
          Otu02430
                       Otu02431 Otu02432
                                              Otu02433
                                                            Otu02434
## CSI002
                                        0 0.000000e+00 0.000000e+00
                 0 6.810968e-05
## CSI013
                 0 4.474130e-04
                                        0 0.000000e+00 0.000000e+00
## CST023
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
## CSI034
                 0 2.084399e-04
                                        0 0.000000e+00 0.000000e+00
```

```
## CSI045
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
                 0 0.000000e+00
                                        0 0.000000e+00 0.000000e+00
  CST056
  CSI066
                 0 0.00000e+00
                                        0 3.833694e-05 0.000000e+00
##
                           Otu02436 Otu02437
                                                  Otu02438 Otu02439 Otu02440
              Ot:1102435
  CSI002 0.000000e+00 1.362194e-05
                                            0 4.086581e-05
                                                                   0
                                                                            0
  CSI013 0.000000e+00 0.000000e+00
                                                                   0
                                            0 3.195807e-05
                                                                            0
  CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                   0
                                                                            0
  CSI034 0.000000e+00 0.000000e+00
                                            0.000000e+00
                                                                   0
                                                                            0
   CSI045 6.530186e-05 0.000000e+00
                                            0 0.000000e+00
                                                                   0
                                                                            O
                                                                   Λ
   CSI056 0.000000e+00 5.877858e-05
                                            0 0.00000e+00
                                                                            0
   CSI066 1.916847e-05 0.000000e+00
                                            0 1.916847e-05
          OtuO2441 OtuO2442 OtuO2443 OtuO2444 OtuO2445 OtuO2446 OtuO2447
##
##
  CSI002
                 0
                          0
                                    0
                                             0
                                                      0
                                                               0
                                                                         0
## CSI013
                          0
                                    0
                                             0
                                                                0
                 0
                                                      0
                                                                         0
## CSI023
                 0
                                                                0
                                                                         0
                          0
                                    0
                                             0
                                                      0
## CSI034
                 0
                          0
                                    0
                                             0
                                                      0
                                                                0
                                                                         0
                 0
                          0
                                    0
                                             0
                                                      0
                                                                0
##
  CSI045
                                                                         0
  CSI056
                 0
                          0
                                    0
                                             0
                                                      0
                                                                0
                                                                         0
##
                                                                         0
##
  CST066
                 0
                          0
                                    0
                                             0
                                                      0
                                                                0
##
          Otu02448 Otu02449
                                0tu02450
                                              0tu02451
                                                           Otu02452 Otu02453
                          0 1.362194e-05 0.000000e+00 0.0000000000
##
  CSI002
                 Λ
                                                                            0
## CSI013
                 0
                          0 3.195807e-05 0.000000e+00 0.0000000000
                                                                            0
## CSI023
                          0 4.082049e-05 0.000000e+00 0.0000000000
                 0
                                                                            0
                          0 1.326436e-04 0.000000e+00 0.0000000000
## CSI034
                 0
                 0
## CST045
                          0
  CSI056
                 0
                          0
                 0
                          0 0.000000e+00 0.000000e+00 0.0001533478
                                                                            0
##
  CSI066
##
          Otu02454 Otu02455 Otu02456 Otu02457
                                                   0tu02458
                                                                Otu02459
                 0
                          0
                                             0 6.810968e-05 0.000000e+00
##
  CSI002
                                    0
## CSI013
                 0
                          0
                                    0
                                             0 0.000000e+00 0.000000e+00
## CSI023
                 0
                          0
                                    0
                                             0 0.000000e+00 0.000000e+00
##
  CST034
                 0
                          0
                                    0
                                             0 1.326436e-04 0.000000e+00
                          0
  CSI045
                 0
                                    0
                                             0 0.000000e+00 1.632546e-04
##
                 0
                          0
##
  CSI056
                                    0
                                             0 0.000000e+00 0.000000e+00
                 0
                          0
                                             0 0.000000e+00 3.833694e-05
##
   CSI066
          Otu02460
                                    0tu02462
##
                       Ot:1102461
                                                  0t1102463
                                                               Ot:1102464
## CSI002
                 0.000000e+00 1.089755e-04 1.225974e-04 0.000000e+00
## CSI013
                 0 0.000000e+00 0.000000e+00 6.391614e-05 0.000000e+00
## CSI023
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                 0 0.000000e+00 7.579634e-05 1.894908e-05 0.000000e+00
##
  CST034
                 0 3.265093e-05 0.000000e+00 3.265093e-05 6.530186e-05
  CSI045
                 0 9.796430e-05 0.000000e+00 0.000000e+00 7.837144e-05
##
  CST056
##
   CST066
                 0 7.667389e-05 0.000000e+00 3.833694e-05 1.916847e-05
              Otu02465 Otu02466 Otu02467 Otu02468
##
                                                       Otu02469 Otu02470
                                                                        0
  CSI002 0.0000000000
                              0
                                        0
                                                 0 2.724387e-05
                                                                        0
  CSI013 0.0000000000
                              0
                                        0
                                                 0 3.195807e-05
  CSI023 0.0000000000
                              0
                                        0
                                                 0 2.041025e-05
                                                                        0
                              0
                                        0
                                                                        0
  CSI034 0.0001326436
                                                 0 2.652872e-04
  CSI045 0.0000000000
                              0
                                        0
                                                 0 0.000000e+00
                                                                        0
  CSI056 0.0000000000
                              0
                                        0
                                                 0 0.00000e+00
                                                                        0
  CSI066 0.0000000000
                              0
                                        0
##
                                                 0.0.000000e+00
                                                                        0
##
          Otu02471
                       0tu02472
                                     0tu02473
                                                  Otu02474 Otu02475
                 0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI002
                                                                   0
## CSI013
                 0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                   0
```

```
## CSI023
                  0 0.000000e+00 0.000000e+00 2.041025e-05
                                                                    0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CST034
                                                                    0
   CSI045
                  0 1.306037e-04 3.265093e-05 0.000000e+00
                                                                    0
   CSI056
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
##
##
   CST066
                  0 9.584236e-05 3.833694e-05 0.000000e+00
                                                                    0
              Otu02476 Otu02477
                                     0tu02478
##
                                                   Ot:1102479
                                                                 Otu02480
   CSI002 0.000000e+00
                               0 0.000000000 5.448775e-05 8.173162e-05
  CSI013 1.086574e-03
                               0 0.0018535681 1.917484e-04 0.000000e+00
   CSI023 2.449230e-04
                               0 0.000000000 0.000000e+00 0.000000e+00
   CSI034 0.000000e+00
                               0 0.0000000000 3.979308e-04 1.705418e-04
   CSI045 0.000000e+00
                               0 0.000000000 0.000000e+00 0.000000e+00
                               0 0.0001175572 0.000000e+00 1.959286e-05
   CSI056 0.000000e+00
##
   CSI066 0.000000e+00
                               0 0.000000000 0.000000e+00 0.000000e+00
          0tu02481
                                      Otu02483 Otu02484
##
                        0tu02482
                                                             0tu02485
##
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                      0 0.000000e+00
##
   CSI013
                  0 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
   CSI034
                  0 0.000000e+00 3.789817e-05
                                                      0 0.00000e+00
##
   CST045
                  0 9.795279e-05 0.000000e+00
                                                      0 6.530186e-05
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                      0 1.959286e-05
##
   CST066
                  0 0.000000e+00 7.667389e-05
                                                      0 3.833694e-05
              Otu02486
                                                        Otu02489 Otu02490
##
                            Ot:1102487
                                          Ot.1102488
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00 1.362194e-05
                                                                        0
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00 1.917484e-04
                                                                        0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI034 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI045 3.265093e-05 0.000000e+00 3.265093e-05 0.000000e+00
                                                                        0
   CSI056 0.000000e+00 5.877858e-05 0.000000e+00 0.000000e+00
                                                                        0
                                                                        0
   CSI066 0.000000e+00 3.833694e-05 0.000000e+00 0.000000e+00
##
##
          Otu02491 Otu02492 Otu02493 Otu02494 Otu02495
                                                              Otu02496 Otu02497
## CSI002
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
   CSI013
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                               0
##
   CSI023
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
                  0
                           0
                                              0
                                                                               0
   CSI034
                                     0
                                                        0 0.00000e+00
##
   CSI045
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
                           0
                                              0
                                                                               0
##
  CST056
                  0
                                     0
                                                        0 0.00000e+00
##
   CSI066
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                               0
##
              Otu02498 Otu02499 Otu02500 Otu02501 Otu02502 Otu02503
   CSI002 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI013 0.000000e+00
                                                  0
                                                            0
                                                                     0
##
                               0
                                         0
   CSI023 0.000000e+00
                                                  0
                                                            0
                               0
                                         0
                                                                     0
   CSI034 1.894908e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI045 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI056 0.000000e+00
                               0
                                         0
   CSI066 0.000000e+00
                                                            0
##
              Otu02504 Otu02505 Otu02506 Otu02507
                                                         Otu02508
                                                                      Otu02509
   CSI002 0.0000000000
                               0
                                         0
                                                  0 0.000000e+00 5.448775e-05
                               0
   CSI013 0.0000000000
                                         0
                                                    0.000000e+00 3.834969e-04
   CSI023 0.0000000000
                               0
                                         0
                                                    0.000000e+00 2.041025e-05
   CSI034 0.0000000000
                               0
                                         0
                                                    3.789817e-05 2.273890e-04
   CSI045 0.0000000000
                               0
                                         0
                                                    0.000000e+00 0.000000e+00
   CSI056 0.0000000000
                               0
                                         0
                                                    3.722643e-04 0.000000e+00
##
  CSI066 0.0005558857
                               0
                                         0
                                                  0 1.916847e-05 0.000000e+00
##
              Otu02510 Otu02511
                                      Otu02512 Otu02513
                                                             Otu02514 Otu02515
```

```
## CSI002 1.362194e-05
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI013 0.000000e+00
                               0 9.587421e-05
                                                      0 3.195807e-05
                                                                             0
  CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0 0.000000e+00
                                                                             0
  CSI034 0.000000e+00
                               0 1.894908e-05
                                                      0 0.00000e+00
                                                                             0
  CSI045 0.000000e+00
                               0 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI056 0.000000e+00
                               0 1.959286e-05
                                                      0 0.00000e+00
                                                                             0
##
  CSI066 0.000000e+00
                               0 5.750542e-05
                                                      0 5.750542e-05
                                                                             0
                                                        Otu02520 Otu02521
##
              Otu02516 Otu02517 Otu02518 Otu02519
  CSI002 0.0000000000
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
                               0
                                        0
                                                                        0
  CSI013 0.0000000000
                                                 0 0.000000e+00
  CSI023 0.0000000000
                               0
                                        0
                                                 0 0.00000e+00
                                                                        0
                               0
                                        0
                                                                        0
  CSI034 0.0000000000
                                                 0 0.00000e+00
   CSI045 0.0000000000
                               0
                                        0
                                                   1.959056e-04
                                                                        0
                                                 0 0.00000e+00
   CSI056 0.0000000000
                               0
                                        0
                                                                        0
                               0
                                        0
                                                 0 0.000000e+00
##
  CSI066 0.0003066955
                                                                        0
##
              0tu02522
                            Otu02523 Otu02524 Otu02525
                                                            Otu02526
  CSI002 0.000000e+00 6.810968e-05
                                            0
##
                                                      0 0.00000e+00
   CSI013 0.000000e+00 3.515388e-04
                                            0
                                                      0 0.00000e+00
  CSI023 0.000000e+00 2.041025e-05
                                            0
                                                      0 1.428717e-04
  CSI034 0.000000e+00 4.358289e-04
                                            0
                                                      0 0.00000e+00
  CSI045 1.959056e-04 0.000000e+00
                                            0
                                                      0 0.00000e+00
   CSI056 3.918572e-05 0.000000e+00
                                            0
                                                      0 1.175572e-04
  CSI066 0.000000e+00 0.000000e+00
##
                                            0
                                                      0.0.000000e+00
##
              Otu02527 Otu02528
                                     Otu02529 Otu02530 Otu02531
                                                                     Ot:1102532
## CSI002 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                               0.000000e+00
  CSI013 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 1.597904e-04
  CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
  CSI034 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 2.842363e-04
                                                      0
  CSI045 6.530186e-05
                               0 3.265093e-05
                                                               0 0.00000e+00
  CSI056 0.000000e+00
                               0 9.796430e-05
                                                      0
                                                               0 0.00000e+00
##
  CSI066 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                               0 0.00000e+00
##
              0 \pm 1102533
                            Otu02534
                                         Otu02535 Otu02536
                                                                0 \pm 1102537
   CSI002 4.086581e-05 0.000000e+00 5.448775e-05
                                                          0 0.00000e+00
  CSI013 0.000000e+00 0.000000e+00 3.195807e-05
                                                          0 0.000000e+00
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0 0.000000e+00
  CSI034 3.789817e-05 0.000000e+00 0.000000e+00
                                                          0 0.00000e+00
   CSI045 0.000000e+00 3.265093e-05 0.000000e+00
                                                          0 0.000000e+00
  CSI056 0.000000e+00 1.959286e-05 7.837144e-05
                                                          0 0.000000e+00
  CSI066 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                          0.0.000000e+00
##
                            Otu02539
              Ot:1102538
                                         Otu02540 Otu02541
                                                                Ot:1102542
  CSI002 5.448775e-05 2.724387e-05 0.000000e+00
                                                          0 0.00000e+00
  CSI013 2.237065e-04 2.556646e-04 3.195807e-05
                                                          0 0.000000e+00
  CSI023 0.000000e+00 6.123074e-05 2.041025e-05
                                                          0 0.00000e+00
  CSI034 7.579634e-05 0.000000e+00 3.789817e-05
                                                          0 0.000000e+00
   CSI045 3.265093e-05 0.000000e+00 3.265093e-05
                                                          0 0.00000e+00
   CSI056 1.959286e-05 0.000000e+00 3.918572e-05
                                                          0 0.00000e+00
##
  CSI066 0.000000e+00 9.584236e-05 1.916847e-05
                                                          0 1.916847e-05
              Otu02543 Otu02544 Otu02545
##
                                              0tu02546
                                                            Otu02547 Otu02548
  CSI002 0.000000e+00
                               0
                                        0 1.498413e-04 1.362194e-05
                                                                            0
  CSI013 9.587421e-05
                               0
                                        0 0.000000e+00 1.597904e-04
                                                                            0
                               0
                                        0 2.041025e-05 4.082049e-05
  CSI023 0.000000e+00
                                                                             0
## CSI034 9.474542e-05
                               0
                                        0 2.463381e-04 0.000000e+00
                                                                             0
## CSI045 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                            0
## CSI056 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
                                                                             0
```

```
## CSI066 0.000000e+00
                               0
                                         0 0.000000e+00 1.916847e-05
##
          Otu02549 Otu02550 Otu02551 Otu02552 Otu02553 Otu02554 Otu02555
## CSI002
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI013
                                                                  0
                  0
                           0
                                     0
                                              0
                                                        0
                                                                           0
##
  CSI023
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                           0
                                              0
##
  CSI034
                  0
                                     0
                                                        0
                                                                  0
                                                                           0
## CSI045
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI056
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
##
  CSI066
                  0
                           0
                                              0
                                                        Λ
                                                                  0
                                                                           0
##
          0tu02556
                        0tu02557
                                      Otu02558 Otu02559
                                                             Otu02560
  CSI002
                  0 0.000000e+00 1.362194e-05
                                                       0 0.00000e+00
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
##
##
  CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
   CSI034
                                                       0 0.00000e+00
##
                  0 3.789817e-05 1.894908e-05
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0.0.000000e+00
##
   CSI056
                  0 5.877858e-05 0.000000e+00
                                                       0 0.00000e+00
                  0 5.750542e-05 0.000000e+00
                                                       0 0.000000e+00
##
   CSI066
##
              Otu02561 Otu02562
                                      Otu02563 Otu02564 Otu02565 Otu02566
## CSI002 9.535356e-05
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
  CSI013 0.000000e+00
                               0 3.195807e-05
                                                       0
                                                                0
                                                                          0
  CSI023 0.000000e+00
                               0 0.00000e+00
                                                       Λ
                                                                0
                                                                          0
  CSI034 2.842363e-04
                               0 0.000000e+00
                                                                0
                                                       0
                                                                          0
  CSI045 0.000000e+00
                                                                0
                               0 0.00000e+00
                                                       0
                                                                          0
   CSI056 1.959286e-05
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
  CSI066 0.000000e+00
                               0 0.00000e+00
                                                       Ω
                                                                0
                                                                          0
              Otu02567
                            Otu02568 Otu02569 Otu02570
                                                             Otu02571 Otu02572
## CSI002 2.451949e-04 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                              0
   CSI013 9.587421e-05 0.000000e+00
                                             0
                                                       0 1.597904e-04
                                                                              0
   CSI023 1.020512e-04 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI034 7.579634e-05 0.000000e+00
                                             0
                                                       0 9.474542e-05
                                                                              0
   CSI045 0.000000e+00 6.530186e-05
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI056 5.877858e-05 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                       0 3.642010e-04
                                                                              0
##
              Otu02573 Otu02574
                                      Otu02575
                                                    Otu02576 Otu02577 Otu02578
   CSI002 2.724387e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI013 9.587421e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI034 5.874216e-04
                               0 1.894908e-05 1.136945e-04
                                                                     0
                                                                              0
   CSI045 0.000000e+00
                               0 6.530186e-05 0.000000e+00
                                                                     0
   CSI056 0.000000e+00
                               0 1.567429e-04 0.000000e+00
                                                                     0
                                                                              0
                               0 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
##
              0tu02579
                            Otu02580 Otu02581 Otu02582 Otu02583 Otu02584
   CSI002 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                0
                                                                          0
                                             0
                                                                0
   CSI013 0.000000e+00 0.0000000000
                                                       0
                                                                          0
   CSI023 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                0
                                                                          0
   CSI034 1.894908e-05 0.0000000000
                                             0
                                                                0
                                                                          0
                                                       0
   CSI045 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                0
                                                                          0
                                             0
                                                                0
   CSI056 0.000000e+00 0.0002938929
                                                       0
                                                                          0
   CSI066 3.833694e-05 0.00000000000
                                             0
                                                       0
                                                                0
                                                                          0
##
          Otu02585 Otu02586
                                 Otu02587
                                               Otu02588 Otu02589
                                                                       Otu02590
## CSI002
                           0 1.362194e-05 0.000000e+00
                                                                0 0.000000e+00
                  0
## CSI013
                  0
                           0 2.237065e-04 0.000000e+00
                                                                0 0.00000e+00
## CSI023
                  0
                           0 2.041025e-05 0.000000e+00
                                                                0 0.000000e+00
## CSI034
                  0
                           0 2.463381e-04 0.000000e+00
                                                                0 0.000000e+00
```

```
## CSI045
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
## CST056
                  0
                           0 0.000000e+00 7.837144e-05
                                                                0 0.000000e+00
## CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
##
          Otu02591
                        Otu02592 Otu02593
                                               Otu02594 Otu02595 Otu02596
## CST002
                  0 1.089755e-04
                                         0 0.000000e+00
                                                                 0
## CSI013
                  0 9.587421e-05
                                         0 1.597904e-04
                                                                 0
                                                                          0
                                                                 0
## CSI023
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                          0
## CSI034
                  0 0.00000e+00
                                         0 1.894908e-05
                                                                 0
                                                                          0
   CSI045
                  0 0.000000e+00
                                         0 1.632546e-04
                                                                 0
                                                                          0
                                                                 Λ
                                                                          0
  CSI056
                  0 0.000000e+00
                                         0 3.918572e-05
   CSI066
                  0 1.916847e-04
                                         0 9.584236e-05
                                                                 0
##
          Otu02597
                        Otu02598 Otu02599
                                               Otu02600 Otu02601 Otu02602
##
  CSI002
                  0 4.086581e-05
                                         0 0.000000e+00
                                                                 0
                                                                          0
## CSI013
                  0 3.195807e-05
                                                                 0
                                         0 0.00000e+00
                                                                          0
## CSI023
                  0 0.000000e+00
                                         0 1.020512e-04
                                                                 0
                                                                          0
  CSI034
                  0 3.789817e-05
                                         0 1.894908e-05
                                                                 0
                                                                          0
                  0 0.000000e+00
                                                                 0
                                                                          0
##
  CSI045
                                         0 0.00000e+00
##
   CSI056
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                 0
##
   CST066
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                          0
          Otu02603 Otu02604 Otu02605
                                           Otu02606 Otu02607 Otu02608 Otu02609
## CSI002
                  Ω
                           Λ
                                     0 0.000000e+00
                                                            Λ
                                                                      0
                                                                                Λ
## CSI013
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
## CSI023
                           0
                                                            0
                                                                                0
                  0
                                     0 0.00000e+00
                                                                      0
                  0
                           0
                                                            0
## CSI034
                                     0 1.894908e-05
                                                                      0
                                                                                0
## CSI045
                           0
                                                            Λ
                                                                      0
                                                                                O
                  0
                                     0 1.306037e-04
  CSI056
                  0
                           0
                                     0 1.959286e-05
                                                            Λ
                                                                                O
##
  CSI066
                  0
                           0
                                     0 3.833694e-05
                                                            0
                                                                      0
                                                                                0
          Otu02610 Otu02611 Otu02612
                                           Otu02613 Otu02614 Otu02615 Otu02616
## CSI002
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
## CSI013
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                                0
## CSI023
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                                0
##
  CST034
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
                           0
##
  CSI045
                  0
                                     0 6.530186e-05
                                                            0
                                                                                0
  CSI056
                  0
                           0
                                                            0
                                                                                0
##
                                     0 8.816787e-04
                                                                      0
   CSI066
                  0
                           0
                                     0 3.833694e-05
                                                            0
                                                                      0
                                                                                0
##
          Otu02617
                        Otu02618 Otu02619 Otu02620 Otu02621 Otu02622 Otu02623
##
## CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            Λ
                                                                      0
                                                                                0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                  0 0.000000e+00
                                         Λ
                                                   Ω
                                                            Λ
                                                                      0
                                                                                Λ
## CSI034
                                         0
                                                   0
                                                            0
                                                                                0
  CSI045
                  0 0.00000e+00
## CSI056
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CST066
                  0 0.00000e+00
                                         0
                                                   0
          Otu02624
                                      Otu02626 Otu02627
##
                        Otu02625
                                                             Otu02628
## CSI002
                  0 1.362194e-05 0.000000e+00
                                                       0 5.448775e-05
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0 1.597904e-04
  CSI023
                  0 4.082049e-05 0.000000e+00
                                                       0 0.00000e+00
  CSI034
                  0 0.000000e+00 0.000000e+00
                                                       0 7.579634e-05
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
                  0 0.000000e+00 7.667389e-05
##
                                                       0 5.750542e-05
##
               Otu02629 Otu02630 Otu02631 Otu02632 Otu02633 Otu02634
## CSI002 4.086581e-04
                                0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI013 6.391614e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
```

```
## CSI023 2.041025e-05
                                0
                                                            0
                                                                      0
  CSI034 7.579634e-05
                                         0
                                0
                                                   0
                                                            0
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
  CSI056 1.959286e-05
                                0
                                         0
                                                   0
                                                            Λ
                                                                      0
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
##
               0tu02635
                            Otu02636 Otu02637 Otu02638 Otu02639 Otu02640
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
## CSI013 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI023 0.000000e+00 2.041025e-05
                                             0
                                                       0
                                                                 0
                                                                          0
                                                                 0
   CSI034 5.684725e-05 0.000000e+00
                                             0
                                                       0
                                                                          Λ
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                                 0
                                                                          0
                                                       0
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
                                                    Otu02644 Otu02645 Otu02646
##
               0tu02641
                            Otu02642 Otu02643
   CSI002 1.362194e-04 1.362194e-05
                                                                     0
                                             0 1.362194e-04
                                                                               0
   CSI013 2.556646e-04 3.195807e-05
                                             0 6.391614e-05
                                                                     0
                                                                               0
   CSI023 0.000000e+00 4.082049e-05
                                             0 0.00000e+00
                                                                     0
                                                                               0
   CSI034 3.600326e-04 6.442688e-04
                                             0 3.789817e-05
                                                                     0
   CSI045 0.000000e+00 0.000000e+00
                                             0 3.265093e-05
                                                                     0
                                                                               0
   CSI056 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                     0
                                                                               0
##
   CSI066 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                               0
               Otu02647 Otu02648
                                      Otu02649
##
                                                    Otu02650 Otu02651 Otu02652
## CSI002 2.860607e-04
                                0 0.000000e+00 4.086581e-05
                                                                     0
                                                                               0
   CSI013 0.000000e+00
                                0 0.000000e+00 1.278323e-04
                                                                     0
                                                                               0
  CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI034 3.789817e-05
                                0 0.000000e+00 1.894908e-05
                                                                     0
                                                                               0
   CSI045 0.000000e+00
                                0 3.265093e-05 6.530186e-05
                                                                     0
                                                                               0
   CSI056 0.000000e+00
                                0 2.351143e-04 2.351143e-04
                                                                     0
                                                                               0
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
##
##
               Otu02653
                            Otu02654 Otu02655
                                                    Otu02656 Otu02657 Otu02658
##
   CSI002 0.000000e+00 4.359020e-04
                                             0 8.173162e-05
                                                                     0
                                                                               0
   CSI013 0.000000e+00 3.195807e-05
                                             0 2.876226e-04
                                                                     0
                                                                               0
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                     0
                                                                               0
   CSI034 0.000000e+00 0.000000e+00
                                                                     0
                                             0 3.600326e-04
                                                                               0
   CSI045 0.000000e+00 6.530186e-05
                                             0 0.00000e+00
                                                                     0
                                                                               0
   CSI056 0.000000e+00 0.000000e+00
                                                                     0
                                             0.000000e+00
                                                                               0
##
   CSI066 0.000000e+00 1.916847e-05
                                             0 0.000000e+00
                                                                     0
##
          0±1102659
                        Otu02660
                                      Otu02661 Otu02662 Otu02663 Otu02664
## CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                          0
  CSI013
                  0 1.278323e-04 0.000000e+00
                                                                 0
                                                                          0
##
                                                       Ω
                  0 2.041025e-05 0.000000e+00
  CSI023
                                                       0
                                                                 0
                                                                          0
  CSI034
                  0 7.579634e-05 0.000000e+00
                                                       0
                                                                 0
                                                                          0
##
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                       Ω
                                                                 0
                                                                          0
                                                                 0
##
   CSI056
                  0 0.000000e+00 1.959286e-05
                                                       Λ
                                                                          Λ
                  0 0.000000e+00 0.000000e+00
##
   CSI066
                                                       0
                                                                 0
          Otu02665 Otu02666 Otu02667 Otu02668
                                                     Otu02669 Otu02670 Otu02671
##
## CSI002
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
  CSI013
                                                                                0
##
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
  CSI023
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                                                                                0
##
  CSI034
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
                  0
                           0
                                     0
                                                                      0
                                                                                0
##
  CSI045
                                               0.0.000000e+00
## CSI056
                  0
                           0
                                     0
                                               0 5.877858e-05
                                                                      0
                                                                                0
## CSI066
                  0
                           0
                                     0
                                               0.000000e+00
                                                                      0
                                                                                0
##
          0tu02672
                        Otu02673 Otu02674
                                               Otu02675 Otu02676 Otu02677
```

```
## CSI002
                  0 0.00000e+00
                                         0 4.086581e-05
                                                                0
                                                                         0
##
  CST013
                  0 0.000000e+00
                                         0 6.391614e-05
                                                                0
                                                                         0
                  0 0.000000e+00
   CSI023
                                         0 0.00000e+00
                                                                0
                                                                         0
   CSI034
                                         0 5.684725e-05
                                                                0
                                                                         0
##
                  0.000000e+00
##
   CST045
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
                                                                         0
                                                                0
                                                                         0
   CSI056
                  0 0.000000e+00
                                         0 0.00000e+00
##
##
   CSI066
                  0 5.750542e-05
                                         0 1.916847e-05
                                                                0
                                                   Otu02681 Otu02682 Otu02683
##
              Otu02678 Otu02679
                                     Ot:1102680
   CSI002 0.000000e+00
                               0 0.000000000 0.000000e+00
                                                                    0
                                                                              O
   CSI013 3.195807e-05
                               0 0.000000000 0.000000e+00
                                                                    0
                                                                              0
   CSI023 0.000000e+00
                               0 0.000000000 0.000000e+00
                                                                    0
                                                                              0
   CSI034 0.000000e+00
                               0 0.000000000 0.000000e+00
                                                                    0
                                                                              0
   CSI045 0.000000e+00
                               0 0.0000000000 6.530186e-05
                                                                    0
                                                                              0
   CSI056 0.000000e+00
                               0 0.0012343502 1.959286e-05
                                                                    0
                                                                              0
   CSI066 0.000000e+00
                               0 0.000000000 0.000000e+00
                                                                    0
                                                                              0
##
##
          Otu02684
                        Otu02685
                                      Otu02686 Otu02687 Otu02688
                                                                      Otu02689
  CSI002
                  0 0.0000000000 1.362194e-05
##
                                                      0
                                                                0 0.00000e+00
   CSI013
                  0 0.000000000 0.000000e+00
                                                      0
                                                                0 0.00000e+00
  CSI023
                  0 0.0000000000 2.041025e-05
##
                                                      0
                                                                0.000000e+00
   CSI034
                  0 0.0000000000 1.894908e-05
                                                      0
                                                                0 0.00000e+00
##
   CST045
                  0 0.0000000000 0.000000e+00
                                                      Λ
                                                                0 0.000000e+00
                  0 0.0000000000 0.000000e+00
   CST056
                                                      0
                                                                0.000000e+00
##
  CSI066
                  0 0.0001341793 0.000000e+00
                                                      0
                                                                0 0.00000e+00
##
              Ot:1102690
                            Otu02691 Otu02692 Otu02693 Otu02694
                                                                      0tu02695
   CSI002 0.0000000000 0.000000e+00
                                             0
                                                      0
                                                                0 4.222800e-04
   CSI013 0.0000000000 0.000000e+00
                                             0
                                                      0
                                                                0 3.195807e-05
   CSI023 0.0000000000 2.041025e-05
                                             0
                                                      0
                                                                0 6.123074e-05
   CSI034 0.0000000000 0.000000e+00
                                             0
                                                      0
                                                                0 1.894908e-05
   CSI045 0.0000000000 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
   CSI056 0.0000000000 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
##
   CSI066 0.0000000000 0.000000e+00
                                             0
                                                      0
                                                                0 0.00000e+00
##
              Otu02696 Otu02697 Otu02698 Otu02699 Otu02700
                                                                  0 \pm 1102701
   CSI002 0.000000e+00
                                         0
                                                  0
                                                            0 1.089755e-04
                               0
   CSI013 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 1.278323e-04
   CSI023 0.000000e+00
                               0
                                         0
                                                  0
                                                             0.000000e+00
                                         0
                                                  0
   CSI034 0.000000e+00
                               0
                                                            0 3.789817e-05
   CSI045 3.265093e-05
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
  CSI056 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
##
                               0
                                         0
                                                  0
##
   CSI066 1.916847e-05
                                                            0.000000e+00
##
                                     Otu02704 Otu02705
              Otu02702 Otu02703
                                                             Ot:1102706
  CSI002 0.000000e+00
                               0 4.086581e-05
                                                      0 0.00000e+00
   CSI013 0.000000e+00
                                                      0 0.00000e+00
                               0 2.556646e-04
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
   CSI034 0.000000e+00
                                                      0 0.00000e+00
                               0 2.652872e-04
   CSI045 6.530186e-05
                               0 0.00000e+00
                                                      0 0.00000e+00
   CSI056 0.000000e+00
                               0 0.00000e+00
                                                      0 4.114501e-04
##
   CSI066 3.833694e-05
                               0 0.00000e+00
                                                      0 1.916847e-05
##
              Otu02707 Otu02708
                                      Otu02709
                                                   Otu02710 Otu02711 Otu02712
   CSI002 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
   CSI013 3.195807e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI023 0.000000e+00
                                                                              0
  CSI034 0.000000e+00
                               0 3.789817e-05 0.000000e+00
                                                                    0
                                                                              0
                               0 0.000000e+00 2.612074e-04
## CSI045 0.000000e+00
                                                                    0
                                                                              0
## CSI056 1.959286e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
```

```
## CSI066 0.000000e+00
                               0 0.000000e+00 1.725162e-04
##
          Otu02713 Otu02714
                                               Otu02716 Otu02717 Otu02718
                                 0tu02715
## CSI002
                 0
                           0 0.000000e+00 0.000000e+00
                                                                0
## CSI013
                  Ω
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          Λ
## CSI023
                 0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                 Λ
                           0 3.789817e-05 0.000000e+00
                                                                Ω
                                                                          0
## CSI034
                  0
                           0 0.000000e+00 1.959056e-04
## CSI045
                                                                0
## CSI056
                 0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
## CSI066
                 0
                           0 0.000000e+00 7.092335e-04
                                                                          0
##
              Otu02719 Otu02720
                                     Otu02721
                                                   Otu02722
                                                                 0tu02723
## CSI002 4.086581e-05
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI013 9.587421e-05
  CSI023 0.000000e+00
                               0 6.123074e-05 2.041025e-05 0.000000e+00
                               0 0.000000e+00 1.894908e-05 1.894908e-05
## CSI034 3.789817e-05
  CSI045 0.000000e+00
                               0 0.000000e+00 3.265093e-05 0.000000e+00
   CSI056 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
                               0 2.491901e-04 3.833694e-05 0.000000e+00
##
              Otu02724 Otu02725 Otu02726 Otu02727 Otu02728 Otu02729 Otu02730
## CSI002 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI013 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI023 0.000000e+00
                               0
                                         0
                                                  Ω
                                                            Λ
                                                                     0
                                                                               0
## CSI034 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                               0
## CSI045 0.000000e+00
                                         0
                                                  0
                               0
                                                            0
                                                                     0
                                                                               Ω
                               0
                                         0
                                                  0
## CSI056 3.918572e-05
                                                            0
                                                                     0
                                                                               0
                                                  0
## CSI066 1.150108e-04
                               0
                                         0
                                                            0
                                                                     0
                                                                               0
          Otu02731 Otu02732 Otu02733
                                          Otu02734 Otu02735
                                                                  Otu02736
## CSI002
                           0
                                    0 0.000000e+00
                                                            0 9.535356e-05
                 0
## CSI013
                  0
                           0
                                     0 0.00000e+00
                                                            0 3.195807e-05
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
## CSI034
                 0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI045
                 0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
## CSI056
                  0
                           0
                                     0 3.918572e-05
                                                            0 0.000000e+00
   CSI066
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
          Otu02737 Otu02738 Otu02739 Otu02740
                                                    Otu02741 Otu02742 Otu02743
##
## CSI002
                 0
                           0
                                    0
                                              0 1.362194e-05
                                                                     0
                                                                               0
## CSI013
                 0
                           0
                                     0
                                              0 6.391614e-05
                                                                     0
                                                                               0
## CSI023
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI034
                  0
                           0
                                     0
                                              0 3.789817e-04
                                                                     0
                                                                               Λ
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
## CST045
                                                                               0
                  Ω
                           0
                                     0
                                                                     0
## CST056
                                              0.000000e+00
                  0
                           0
                                     0
  CSI066
                                              0 0.00000e+00
          Otu02744 Otu02745
                                 Otu02746 Otu02747 Otu02748 Otu02749 Otu02750
##
## CSI002
                 0
                           0 0.000000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
                                                  0
                                                            0
                                                                               0
## CSI013
                  0
                           0 0.000000e+00
                                                                     0
## CSI023
                  0
                           0 0.00000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI034
                 0
                                                  0
                                                            0
                                                                               0
                           0 0.00000e+00
                                                                     0
## CSI045
                  0
                           0 0.00000e+00
                                                  0
                                                            0
                                                                     0
                                                                               0
                                                  0
                                                            0
## CSI056
                  0
                           0 0.000000e+00
                                                                               0
   CST066
                 0
                           0 0.000000e+00
                                                  0
                                                            0
                                                                               0
##
          Otu02751 Otu02752 Otu02753 Otu02754 Otu02755 Otu02756
                                                                        Otu02757
## CSI002
                           0
                                     0
                                              0
                                                        0
                                                                 0 0.000000e+00
                 0
                           0
## CSI013
                  0
                                     0
                                              0
                                                        0
                                                                 0 3.195807e-05
## CSI023
                 0
                           0
                                    0
                                              0
                                                        0
                                                                 0.000000e+00
## CSI034
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0 9.474542e-05
```

```
## CSI045
                  0
                            0
                                                         0
                                                                   0 0.00000e+00
                                                                   0 1.959286e-05
  CST056
##
                  0
                            0
                                      0
                                               0
                                                         0
##
   CSI066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
          Otu02758 Otu02759 Otu02760 Otu02761
                                                      Otu02762 Otu02763 Otu02764
##
  CST002
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
  CSI013
                            0
                                                                       0
                                                                                 0
##
                  0
                                      0
                                               0 0.00000e+00
  CSI023
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI034
                  0
                            0
                                      0
                                               0.0.000000e+00
                                                                       0
                                                                                 0
##
   CSI045
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 O
                            Λ
                                                                       Λ
                                                                                 0
##
   CSI056
                  \cap
                                      0
                                               0 0.00000e+00
##
   CSI066
                  0
                            0
                                               0 1.916847e-05
                                                                                 0
##
               Otu02765
                             Otu02766 Otu02767 Otu02768 Otu02769 Otu02770
##
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI013 0.000000e+00 3.195807e-05
                                              0
                                                        0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                              0
                                                        0
   CSI034 0.000000e+00 1.894908e-05
                                              0
                                                        0
                                                                  0
                                                                            0
                                              0
                                                                  0
   CSI045 0.000000e+00 1.959056e-04
                                                        0
                                                                            0
   CSI056 0.000000e+00 3.330786e-04
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI066 1.916847e-05 1.916847e-05
                                              0
                                                                  0
##
                                                        0
                                                                            0
##
           Otu02771 Otu02772 Otu02773 Otu02774 Otu02775
                                                                Otu02776 Otu02777
##
  CSI002
                  Ω
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 Λ
  CSI013
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 0
## CSI023
                                                                                 0
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
##
   CSI034
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 0
                                               0
                                                                                 0
##
  CST045
                  0
                            0
                                      0
                                                         0.000000000
   CSI056
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 0
   CSI066
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 0
##
               Otu02778 Otu02779 Otu02780
##
                                                Otu02781 Otu02782 Otu02783
                                                                            0
##
   CSI002 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
   CSI013 0.000000e+00
                                0
                                          0 2.237065e-04
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0
                                            2.041025e-05
                                                                  0
                                                                            0
   CSI034 0.000000e+00
                                0
                                          0
                                            2.273890e-04
                                                                  0
                                                                            0
   CSI045 0.000000e+00
                                0
                                            3.265093e-05
                                                                  0
                                                                            0
                                                                  0
##
   CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                            0
   CSI066 0.000000e+00
                                          0 9.584236e-05
                                                                  0
                                                                            0
##
##
               Otu02784
                             Otu02785 Otu02786 Otu02787 Otu02788 Otu02789
   CSI002 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.0000000000
                                              0
                                                                  0
                                                        0
                                                                            0
   CSI034 1.894908e-05 0.0000000000
                                              0
                                                                  0
                                                                            0
                                                        Ω
   CSI045 6.530186e-05 0.0000000000
                                                                  0
                                              0
                                                        0
                                                                            0
   CSI056 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
                             Otu02791 Otu02792
##
               Otu02790
                                                Otu02793 Otu02794
                                                                         0tu02795
   CSI002 0.000000e+00 1.362194e-05
                                              0
                                                        0
                                                                  0 1.089755e-04
   CSI013 0.000000e+00 1.597904e-04
                                               0
                                                        0
                                                                  0 3.195807e-05
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 6.123074e-05
   CSI034 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 2.463381e-04
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0 0.000000e+00
   CSI056 0.000000e+00 7.837144e-05
                                               0
                                                        0
                                                                  0 0.00000e+00
   CSI066 0.000000e+00 9.584236e-05
##
                                               0
                                                        0
                                                                  0 1.916847e-05
##
               Otu02796 Otu02797 Otu02798
                                                 Otu02799 Otu02800
                                                                        Otu02801
## CSI002 0.000000e+00
                                0
                                          0 6.810968e-05
                                                                  0 1.362194e-05
## CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.000000e+00
```

```
## CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
  CSI034 0.000000e+00
                               0
                                         0 3.789817e-05
                                                                0 1.894908e-05
   CSI045 3.265093e-05
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
  CSI056 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
##
   CST066 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.000000e+00
              Otu02802 Otu02803 Otu02804
##
                                               Otu02805 Otu02806
                                                                      Otu02807
  CSI002 5.448775e-05
                               0
                                         0 0.00000e+00
                                                                0 6.810968e-05
## CSI013 3.515388e-04
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI023 2.041025e-05
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
   CSI034 1.515927e-04
                               0
                                         0 0.00000e+00
                                                                0 9.474542e-05
   CSI045 0.000000e+00
                               0
                                         0 3.265093e-05
                                                                0 0.00000e+00
                               0
   CSI056 0.000000e+00
                                         0 7.837144e-05
                                                                0 0.000000e+00
##
   CSI066 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
##
              Otu02808
                            Otu02809 Otu02810 Otu02811 Otu02812 Otu02813
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
   CSI013 2.876226e-04 6.391614e-05
                                             0
                                                      0
                                                                0
                                                                          0
                                                                0
                                                                          0
   CSI023 4.082049e-05 6.123074e-05
                                             0
                                                      0
   CSI034 0.000000e+00 3.789817e-05
                                             0
                                                      0
                                                                0
                                                                          0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                                0
                                                                          0
                                                      0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
##
   CSI066 1.916847e-05 0.000000e+00
                                             0
                                                      Λ
                                                                0
                                                                          0
              Otu02814 Otu02815
##
                                      Ot:1102816
                                                   Ot1102817 Ot1102818
## CSI002 1.362194e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI013 1.597904e-04
                               0 0.000000e+00 0.000000e+00
                                                                    0
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
   CSI034 9.474542e-05
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 0.000000e+00 3.265093e-05
                                                                    0
   CSI045 0.000000e+00
   CSI056 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                    0
                               0 2.300217e-04 0.000000e+00
                                                                    0
##
   CSI066 0.000000e+00
##
              Otu02819
                            Otu02820 Otu02821 Otu02822
                                                             Otu02823 Otu02824
##
   CSI002 0.000000e+00 1.362194e-05
                                             0
                                                      0 1.362194e-05
                                                                              0
   CSI013 0.000000e+00 0.000000e+00
                                             0
                                                      0 3 195807e-05
                                                                              0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                              0
                                             0
   CSI034 0.000000e+00 1.894908e-05
                                                      0 0.00000e+00
                                                                              0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                              0
   CSI056 0.000000e+00 1.567429e-04
                                             0
                                                      0 0.000000e+00
                                                                              0
##
   CSI066 3.833694e-05 2.875271e-04
                                             0
                                                      0 0.000000e+00
                                                                              0
##
              Otu02825 Otu02826
                                     Otu02827 Otu02828
                                                             Otu02829 Otu02830
  CSI002 8.173162e-05
                               0 1.362194e-05
                                                      0 8.173162e-05
                                                                              0
   CSI013 0.000000e+00
                                                      0 1.917484e-04
                               0 0.00000e+00
                                                                              0
   CSI023 1.632820e-04
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
  CSI034 5.684725e-05
                               0 2.842363e-04
                                                      0 2.084399e-04
                                                                              0
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                      0 0.000000e+00
                                                                              0
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              Λ
   CSI056 2.155215e-04
   CSI066 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                              0
              Otu02831 Otu02832 Otu02833 Otu02834 Otu02835 Otu02836 Otu02837
##
   CSI002 1.362194e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
                                                                               0
   CSI013 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
   CSI023 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
   CSI034 5.684725e-05
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
   CSI045 0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
##
  CSI066 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
                                                                               0
##
          Otu02838
                        Otu02839 Otu02840
                                               Otu02841
                                                             0tu02842
```

```
## CSI002
                  0 4.903897e-04
                                         0 0.000000e+00 0.000000e+00
  CST013
                                         0 0.000000e+00 0.000000e+00
##
                  0 0.00000e+00
                  0 0.000000e+00
   CSI023
                                         0 0.000000e+00 0.000000e+00
  CSI034
                                         0 0.000000e+00 0.000000e+00
##
                  0.000000e+00
##
   CST045
                  0 0.000000e+00
                                         0 2.612074e-04 0.000000e+00
                                         0 0.000000e+00 3.918572e-05
   CSI056
                  0 0.000000e+00
##
##
   CSI066
                  0 0.000000e+00
                                         0 4.217064e-04 0.000000e+00
##
               0tu02843
                            Otu02844 Otu02845 Otu02846 Otu02847 Otu02848
   CSI002 2.724387e-05 1.362194e-05
                                             0
                                                       0
                                                                 0
                                                                          0
                                             0
                                                                 0
                                                                          0
   CSI013 0.000000e+00 1.278323e-04
                                                       0
   CSI023 0.000000e+00 4.082049e-05
                                              0
                                                       0
                                                                 0
                                                                          0
                                              0
                                                                 0
                                                                          0
   CSI034 7.579634e-05 0.000000e+00
                                                       0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI056 1.959286e-05 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                          0
   CSI066 0.000000e+00 1.150108e-04
                                             0
                                                       0
                                                                 0
                                                                          0
##
##
          Otu02849
                        Otu02850 Otu02851 Otu02852 Otu02853 Otu02854 Otu02855
## CSI002
                  0 4.086581e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI013
                  0 6.391614e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI023
                                                                                0
##
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
##
  CSI034
                  0 5.684725e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
  CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                            Λ
                                                                      0
                                                                                O
   CSI056
                  0 0.000000e+00
                                                            0
                                                                                0
##
                                         0
                                                   0
                                                            0
##
  CSI066
                  0 1.916847e-05
                                         0
                                                                      0
                                                                                0
##
          Otu02856
                        0tu02857
                                      Otu02858
                                                    Otu02859 Otu02860
## CST002
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
  CSI013
                  0 0.000000e+00 6.391614e-05 0.000000e+00
                                                                     0
  CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
##
##
   CSI034
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
##
   CSI045
  CSI056
                  0 2.547072e-04 0.000000e+00 0.000000e+00
                                                                     0
##
   CSI066
                  0 3.833694e-05 0.000000e+00 0.000000e+00
                                                                     0
##
               Otu02861
                            Otu02862 Otu02863 Otu02864 Otu02865 Otu02866
   CSI002 4.086581e-05 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI013 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
                                             0
                                                       0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI034 0.000000e+00 0.000000e+00
                                                                 0
                                             0
                                                       0
                                                                          0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                                 0
                                                                          Λ
##
                                                       Ω
   CSI066 7.667389e-05 1.916847e-05
                                             0
                                                                 0
##
                                                       0
##
               Otu02867 Otu02868
                                                    Otu02870 Otu02871
                                      Ot:1102869
  CSI002 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                     0
  CSI013 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                     0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                     0
   CSI034 7.579634e-05
                               0 0.000000e+00 0.0000000000
                                                                     0
   CSI045 0.000000e+00
                               0 0.000000e+00 0.0001632546
                                                                     0
   CSI056 0.000000e+00
                               0 0.000000e+00 0.0000000000
                                                                     0
##
   CSI066 3.833694e-05
                               0 5.750542e-05 0.0000000000
                                                                     0
##
               Otu02872 Otu02873
                                      Otu02874
                                                    Otu02875 Otu02876 Otu02877
  CSI002 2.724387e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI013 2.876226e-04
                               0 1.278323e-04 0.000000e+00
                                                                     0
                                                                               0
                               0 0.000000e+00 0.000000e+00
                                                                     0
##
   CSI023 0.000000e+00
                                                                               0
## CSI034 0.000000e+00
                               0 3.789817e-05 0.000000e+00
                                                                     0
                                                                               0
                               0 0.000000e+00 0.000000e+00
## CSI045 0.000000e+00
                                                                     0
                                                                              0
## CSI056 0.000000e+00
                               0 2.155215e-04 0.000000e+00
                                                                     0
                                                                               0
```

```
## CSI066 0.000000e+00
                               0 0.000000e+00 1.916847e-05
          Otu02878 Otu02879 Otu02880
##
                                          Otu02881 Otu02882 Otu02883 Otu02884
                                    0 0.00000e+00
## CSI002
                 0
                           0
                                                           0
                                                                     0
                                                                              0
## CSI013
                                                                              0
                 0
                           0
                                    0 6.391614e-05
                                                           0
                                                                     0
## CSI023
                 0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
                           0
                                                           Λ
                                                                              Λ
## CSI034
                 0
                                    0 0.00000e+00
                                                                     0
                           0
                                                            0
## CSI045
                 0
                                    0 0.00000e+00
                                                                              0
## CSI056
                 0
                           0
                                    0.000000e+00
                                                           0
                                                                     0
                                                                              0
##
  CSI066
                 0
                           0
                                    0 1.916847e-05
                                                           0
                                                                               O
                                                        Otu02889
##
              Otu02885 Otu02886 Otu02887 Otu02888
                                                                      Otu02890
  CSI002 0.0000000000
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
  CSI013 0.0000000000
                               0
                                         0
                                                  0 0.000000e+00 0.000000e+00
  CSI023 0.0000000000
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
                               0
                                        0
                                                  0 0.000000e+00 0.000000e+00
  CSI034 0.0000000000
  CSI045 0.0000000000
                               0
                                        0
                                                  0 0.000000e+00 6.530186e-05
   CSI056 0.0000000000
                               0
                                        0
                                                  0 0.000000e+00 5.877858e-05
                                        0
                                                  0 3.833694e-05 1.341793e-04
   CSI066 0.0000000000
                               0
##
          Otu02891 Otu02892
                                 Otu02893 Otu02894
                                                    0tu02895
                                                                  Otu02896
## CST002
                 0
                           0 0.000000e+00
                                                  0
                                                           0.000000e+00
## CSI013
                 0
                           0 0.000000e+00
                                                  0
                                                           0 9.587421e-04
## CSI023
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.00000e+00
## CSI034
                 0
                           0 0.000000e+00
                                                  0
                                                           0 0.00000e+00
## CSI045
                 0
                                                  0
                           0 0.00000e+00
                                                           0 0.00000e+00
                                                  0
  CSI056
                 0
                           0 0.000000e+00
                                                           0 5.877858e-05
##
  CSI066
                 0
                           0 4.408748e-04
                                                  0
                                                           0 0.000000e+00
              Otu02897 Otu02898 Otu02899
                                               Otu02900
                                                            Otu02901
## CSI002 0.000000e+00
                               0
                                        0 0.000000e+00 0.000000e+00
   CSI013 3.195807e-05
                               0
                                         0 0.000000e+00 3.195807e-05
  CSI023 2.041025e-05
                               0
                                         0 0.000000e+00 0.000000e+00
  CSI034 9.474542e-05
                               0
                                         0 0.000000e+00 9.474542e-05
   CSI045 6.530186e-05
                               0
                                        0 0.000000e+00 3.265093e-05
   CSI056 9.796430e-05
                               0
                                         0 5.877858e-05 0.000000e+00
   CSI066 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
              Otu02902 Otu02903 Otu02904 Otu02905
##
                                                        Otu02906 Otu02907
  CSI002 2.724387e-05
                               0
                                         0
                                                  0 1.362194e-05
                                                                         0
  CSI013 1.597904e-04
                               0
                                        0
                                                  0 0.00000e+00
                                                                         0
## CSI023 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                         0
## CSI034 9.474542e-05
                               0
                                        Λ
                                                  0 0.00000e+00
                                                                         0
   CSI045 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                         0
  CSI056 0.000000e+00
                               0
                                         0
                                                                         0
                                                  0 3.918572e-05
   CSI066 0.000000e+00
                               0
                                         0
                                                  0.000000e+00
##
              Otu02908
                            Otu02909 Otu02910 Otu02911
                                                            0 \pm 1102912 0 \pm 1102913
   CSI002 1.362194e-05 0.000000e+00
                                             0
                                                      0 1.362194e-05
                                                                             0
                                             0
   CSI013 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
  CSI034 0.000000e+00 0.000000e+00
                                             0
                                                      0 7.579634e-05
                                                                             0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
                                             0
   CSI056 1.959286e-05 0.000000e+00
                                                      0 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.000000e+00
                                                                             0
##
          0tu02914
                        Otu02915 Otu02916 Otu02917 Otu02918
                                                                  Otu02919
## CSI002
                 0 0.000000e+00
                                        0
                                                  0
                                                           0 0.000000e+00
                                         0
                                                  0
## CSI013
                 0 6.391614e-05
                                                           0 0.00000e+00
## CSI023
                 0.000000e+00
                                        0
                                                  0
                                                           0.000000e+00
## CSI034
                 0 1.326436e-04
                                         0
                                                  0
                                                           0 0.00000e+00
```

```
## CSI045
                  0 0.00000e+00
                                         0
                                                  0
                                                            0 0.00000e+00
                  0 3.918572e-05
                                         0
                                                   0
                                                            0.0.000000e+00
  CST056
   CSI066
                  0 3.833694e-05
                                         0
                                                   0
                                                            0 0.000000e+00
##
              Otu02920 Otu02921
                                      Otu02922 Otu02923
                                                             Otu02924 Otu02925
   CSI002 0.000000e+00
                               0 0.000000e+00
                                                       0 2.724387e-05
                                                                              0
                                                                              0
  CSI013 3.195807e-05
                               0 0.00000e+00
                                                       0 0.00000e+00
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
  CSI034 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                       0 9.795279e-05
                                                                              O
   CSI056 0.000000e+00
                               0 1.959286e-05
                                                       0 0.00000e+00
                                                                              Λ
   CSI066 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
##
              Otu02926
                            Otu02927 Otu02928 Otu02929
                                                             Otu02930 Otu02931
##
   CSI002 4.086581e-05 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
                                             0
                                                       0 0.00000e+00
   CSI013 1.278323e-04 0.000000e+00
                                                                              0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                              0
   CSI034 9.474542e-05 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                              0
   CSI045 0.000000e+00 3.265093e-05
                                             0
                                                       0 3.265093e-05
                                                                              0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                       0 1.959286e-05
   CSI066 1.916847e-05 3.833694e-05
##
                                             0
                                                       0 0.000000e+00
                                                                              0
##
          Otu02932 Otu02933 Otu02934
                                           0tu02935
                                                         Otu02936
                                                                       Otu02937
##
  CSI002
                  Ω
                           0
                                     0 0.000000e+00 0.000000e+00 5.448775e-05
## CSI013
                  0
                           0
                                     0 0.000000e+00 3.195807e-05 6.391614e-05
## CSI023
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                           0
                                     0 3.789817e-05 0.000000e+00 5.684725e-05
  CSI034
                  0
                           0
##
  CST045
                  0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056
                  0
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066
                  0
                           0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
                   Otu02939
##
          Otu02938
                             Otu02940 Otu02941
                                                     Otu02942
                                                                  Otu02943
                  0
                           0
                                              0 1.362194e-05 0.0000000000
##
  CSI002
                                     0
## CSI013
                  0
                           0
                                     0
                                              0 3.195807e-05 0.0000000000
## CSI023
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0000000000
  CST034
                  0
                           0
                                     0
                                              0 7.579634e-05 0.0000000000
   CSI045
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0001632546
                  0
                           0
##
  CSI056
                                     0
                                              0 0.000000e+00 0.0000979643
                  0
                           0
                                     0
                                                0.000000e+00 0.0001725162
##
   CSI066
                                              0
          Otu02944 Otu02945 Otu02946 Otu02947
                                                     0tu02948
##
                                                                  Ot:1102949
## CSI002
                  0
                           0
                                     0
                                              0 0.000000e+00 1.362194e-05
## CSI013
                  0
                           0
                                     0
                                              0 0.000000e+00 2.237065e-04
## CSI023
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                  0
                           0
                                     0
                                              0 1.894908e-05 5.684725e-05
##
  CST034
                  0
                           0
                                              0 0.000000e+00 0.000000e+00
   CSI045
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
##
  CSI056
##
   CST066
                  0
                           0
                                     0
                                              0 0.000000e+00 1.916847e-05
              Otu02950 Otu02951 Otu02952 Otu02953 Otu02954 Otu02955
##
   CSI002 0.0000000000
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI013 0.0000000000
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI023 0.0000000000
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                               0
                                         0
                                                   0
   CSI034 0.0000000000
                                                            0
                                                                      0
   CSI045 0.0000000000
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI056 0.0000000000
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                               0
                                                   0
                                                            0
                                                                      0
##
   CSI066 0.0002108532
                                         0
##
              Otu02956 Otu02957
                                      Otu02958 Otu02959 Otu02960 Otu02961
## CSI002 6.810968e-05
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
## CSI013 2.237065e-04
                               0 0.00000e+00
                                                       0
                                                                0
                                                                          0
```

```
## CSI023 2.041025e-05
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI034 7.579634e-05
                                                        0
                                                                  0
                                0 0.00000e+00
                                                                            0
   CSI045 0.000000e+00
                                0 9.795279e-05
                                                        0
                                                                  0
                                                                            0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        Λ
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00
                                  0.000000e+00
                                                        0
                                                                  0
                                                                            0
               Otu02962 Otu02963
                                                     0tu02965
##
                                       0tu02964
                                                                   Ot:1102966
   CSI002 5.448775e-05
                                0 0.000000e+00 0.000000e+00 4.086581e-05
  CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                0 0.000000e+00 2.041025e-05 0.000000e+00
   CSI034 5.684725e-05
                                0 5.684725e-05 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
                                0 0.000000e+00 1.371500e-04 0.000000e+00
   CSI056 0.000000e+00
##
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00 1.916847e-05
##
           Otu02967 Otu02968 Otu02969
                                            Otu02970 Otu02971
                                                                    0tu02972
##
  CSI002
                            0
                                      0 0.000000e+00
                                                             0 0.000000e+00
                  0
##
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                             0 0.00000e+00
                            0
##
   CSI023
                  0
                                      0 0.000000e+00
                                                             0 0.00000e+00
   CSI034
                  0
                            0
                                       0.000000e+00
                                                             0 5.684725e-05
                  0
                            0
##
  CSI045
                                       0.00000e+00
                                                             0 0.00000e+00
##
   CSI056
                  0
                            0
                                       5.877858e-05
                                                               1.959286e-05
##
   CST066
                  Λ
                            0
                                      0 0.000000e+00
                                                             0 0.000000e+00
                         Otu02974 Otu02975 Otu02976 Otu02977
                                                               Otu02978 Otu02979
##
          Ot:1102973
## CSI002
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                  0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI013
                  0 9.587421e-05
                                          0
                                                                                 0
##
  CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
   CSI034
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI045
                  0
                    6.530186e-05
                                          0
                                                    0
                                                              0
                                                                                 0
##
   CSI056
                    0.000000e+00
                                                                       0
                                                    0
                                                             0
                                                                                 0
   CSI066
                                          0
                                                                       0
##
                  0
                    3.833694e-05
##
          Otu02980
                         Otu02981 Otu02982 Otu02983
                                                     Otu02984
                                                               Otu02985
##
   CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
   CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
   CSI023
                  0 2.041025e-05
                                          0
                                                    0
                                                              0
                                                                       0
                                          0
                                                    0
                                                             0
   CSI034
                  0 0.000000e+00
                                                                       0
##
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                          0
                                                    0
                                                             0
                                                                       0
##
   CST056
                  0 0.000000e+00
##
   CSI066
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
               Otu02986
                             Otu02987 Otu02988 Otu02989 Otu02990 Otu02991
   CSI002 1.362194e-05 1.362194e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 3.195807e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                              0
                                                        0
   CSI034 0.000000e+00 1.894908e-05
                                              0
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI045 3.265093e-05 0.000000e+00
                                              0
                                                        0
                                                                            0
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI056 1.959286e-05 0.000000e+00
                                              0
   CSI066 0.000000e+00 0.000000e+00
                                                        0
                                                                            0
               Otu02992 Otu02993 Otu02994 Otu02995 Otu02996
##
                                                                    Otu02997
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 2.724387e-05
                                0
   CSI013 0.000000e+00
                                          0
                                                    0
                                                             0 3.195807e-05
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.000000e+00
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                               5.684725e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                               0.000000e+00
                                                             0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                             0.000000e+00
##
          Otu02998 Otu02999
                                  Otu03000
                                                Otu03001 Otu03002 Otu03003
```

```
## CSI002
                           0 2.724387e-05 0.000000e+00
                                                                 0
                                                                           0
## CST013
                  0
                           0 6.391614e-05 0.000000e+00
                                                                 0
                                                                           0
                           0 0.000000e+00 0.000000e+00
## CSI023
                  0
                                                                 0
                                                                           0
  CSI034
                  0
                             5.684725e-05 0.000000e+00
                                                                 0
                                                                           0
##
##
  CSI045
                  0
                             0.000000e+00 3.265093e-05
                                                                 0
                                                                           0
                           0 0.000000e+00 1.959286e-05
                                                                 0
                                                                           0
##
  CSI056
                  \cap
                           0 0.000000e+00 3.833694e-05
##
   CSI066
                                                                 0
                                                                           0
##
          Otu03004 Otu03005
                                  Otu03006
                                                0t_{11}03007
                                                              Otu03008 Otu03009
## CSI002
                  0
                           0 2.724387e-05 0.000000e+00 0.000000e+00
##
  CSI013
                  0
                           0 9.587421e-05 3.195807e-05 0.000000e+00
                                                                               0
  CSI023
                  0
                           0 0.000000e+00 2.041025e-05 0.000000e+00
                                                                               0
  CSI034
                  0
                           0 1.136945e-04 1.894908e-05 0.000000e+00
##
                                                                               0
##
   CSI045
                  0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                               0
                           0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI056
                  0
                                                                               0
   CSI066
                           0 0.000000e+00 0.000000e+00 1.916847e-05
                                                                               0
##
                  0
##
               Otu03010 Otu03011 Otu03012 Otu03013
                                                         Otu03014 Otu03015
   CSI002 0.000000e+00
                                                   0 0.000000e+00
##
                                0
                                         0
                                                                           0
   CSI013 6.391614e-05
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI023 4.082049e-05
                                         0
                                                   0 0.00000e+00
                                                                           0
                                0
   CSI034 0.000000e+00
                                0
                                         0
                                                   0 1.894908e-05
                                                                           0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 6.530186e-05
                                                                           0
   CSI056 0.000000e+00
                                0
                                         0
                                                   0 5.094144e-04
                                                                           0
  CSI066 0.000000e+00
                                0
                                         0
##
                                                   0 5.750542e-05
                                                                           0
##
          Otu03016
                        Otu03017 Otu03018
                                                Otu03019
                                                              Otu03020 Otu03021
                  0 8.173162e-05
## CSI002
                                         0 0.000000e+00 2.724387e-05
  CSI013
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
  CSI023
                  0 0.00000e+00
                                         0 0.000000e+00 2.041025e-05
                                                                               0
##
##
   CSI034
                  0 1.894908e-05
                                         0 0.000000e+00 1.894908e-05
                                                                               0
   CSI045
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
   CSI056
                  0 0.000000e+00
                                         0 1.959286e-05 0.000000e+00
                                                                               0
##
   CSI066
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
##
               Otu03022
                            Otu03023 Otu03024 Otu03025 Otu03026 Otu03027
   CSI002 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                 0
                                                                           0
   CSI013 0.000000e+00 0.0000000000
                                             0
                                                       0
                                                                 0
                                                                           0
   CSI023 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI034 0.000000e+00 0.0000000000
                                              0
                                                                 0
                                                                           0
                                                       0
   CSI045 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
  CSI056 2.155215e-04 0.00000000000
                                              0
                                                       Λ
                                                                 0
                                                                           0
   CSI066 0.000000e+00 0.0000000000
                                                                 0
                                              0
                                                       0
                                                                           0
##
          Otu03028 Otu03029
                                                Otu03031 Otu03032
                                                                       Otu03033
                                  Otu03030
## CSI002
                           0 2.724387e-05 8.173162e-05
                                                                 0 2.724387e-05
## CSI013
                  0
                           0 0.000000e+00 3.195807e-05
                                                                 0 0.00000e+00
  CSI023
                  0
                           0 4.082049e-05 0.000000e+00
                                                                 0 0.00000e+00
                  0
  CSI034
                           0 0.000000e+00 7.579634e-05
                                                                 0 1.894908e-05
##
                           0 0.000000e+00 0.000000e+00
## CSI045
                  0
                                                                 0 3.265093e-05
                           0 0.000000e+00 0.000000e+00
## CSI056
                  0
                                                                 0 0.00000e+00
##
  CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
                        Otu03035 Otu03036 Otu03037 Otu03038 Otu03039
##
          Otu03034
## CSI002
                  0 6.810968e-05
                                         0
                                                   0
                                                            0
                                                                      0
##
  CSI013
                  0 1.917484e-04
                                         0
                                                   0
                                                             0
                                                                      0
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
##
  CSI023
## CSI034
                  0 1.894908e-04
                                         0
                                                   0
                                                             0
                                                                      0
## CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI056
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
```

```
## CSI066
                  0 0.00000e+00
                                                             0
                                                                       0
                                                         Otu03043 Otu03044
##
               Ot:1103040
                                          Ot:1103042
                             0t_{11}03041
  CSI002 0.0000000000 1.362194e-05 0.000000e+00 0.000000e+00
   CSI013 0.0000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI023 0.000000000 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI034 0.0000000000 3.789817e-05 0.000000e+00 0.000000e+00
                                                                          0
   CSI045 0.000000000 0.000000e+00 1.959056e-04 0.000000e+00
                                                                          0
   CSI056 0.0003722643 1.959286e-05 0.000000e+00 0.000000e+00
                                                                          0
   CSI066 0.0000000000 0.000000e+00 0.000000e+00 1.916847e-05
##
               Otu03045 Otu03046
                                      Otu03047 Otu03048 Otu03049 Otu03050
  CSI002 0.000000e+00
                                0 2.043291e-04
                                                       0
                                                                 0
                                                                           0
                                                                 0
                                                                           0
##
  CSI013 0.000000e+00
                                0 3.195807e-05
                                                       0
   CSI023 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
                                0 1.705418e-04
   CSI034 0.000000e+00
                                                        0
                                                                 0
                                                                           0
   CSI045 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                           0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                 0
                                                                           0
                                                                 0
##
   CSI066 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                           0
##
          Otu03051 Otu03052 Otu03053 Otu03054 Otu03055 Otu03056
## CST002
                           0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
                                     0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
  CST034
                  0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI045
                  \cap
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI056
                  0
                            0
                                               0
                                                                  0
                                                                            0
##
  CSI066
                  0
                            0
                                               0
                                                         0
                                                                  0
                                                                            0
##
               Otu03058 Otu03059
                                      Otu03060
                                                    Otu03061 Otu03062 Otu03063
  CSI002 0.000000e+00
                                0 1.362194e-05 0.000000e+00
##
                                                                      0
                                                                               0
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
                                0 0.000000e+00 0.000000e+00
                                                                      0
   CSI023 0.000000e+00
                                                                               0
   CSI034 0.000000e+00
                                0 5.684725e-05 2.652872e-04
                                                                      0
                                                                               0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
          Otu03064 Otu03065 Otu03066 Otu03067 Otu03068 Otu03069 Otu03070
##
## CSI002
                  0
                            0
                                               0
                                                         0
                                                                  0
                                     0
                                                                            0
  CSI013
                            0
                                               0
                                                         0
                                                                  0
                                                                            0
##
                  0
                                     0
## CSI023
                  0
                            0
                                     0
                                                         0
                                                                  0
                                                                            0
## CSI034
                  0
                            0
                                                         0
                                                                  0
                                     0
                                               0
                                                                            0
                  0
                            0
                                                         0
##
   CSI045
                                               0
                                                                  0
                                                                            0
                            0
                                               0
                                                                  0
##
  CSI056
                  0
                                     0
                                                         \cap
                                                                            0
                                                                  0
##
   CSI066
                  0
                                               0
                                                                            0
                                                    Otu03074 Otu03075
##
               0t_{11}03071
                             Otu03072 Otu03073
   CSI002 1.362194e-05 1.362194e-05
                                              0 0.000000e+00
                                                                      0
   CSI013 6.391614e-05 0.000000e+00
                                                                      0
                                              0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
   CSI034 0.000000e+00 1.894908e-05
                                              0 0.00000e+00
                                                                      0
   CSI045 6.530186e-05 0.000000e+00
                                              0 6.530186e-05
                                                                      0
   CSI056 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0 3.833694e-05
                                                                      0
##
               Otu03076
                             Otu03077 Otu03078 Otu03079 Otu03080
                                                                        Otu03081
  CSI002 0.000000e+00 2.724387e-05
                                              0
                                                       0
                                                                 0 6.810968e-05
## CSI013 0.000000e+00 2.237065e-04
                                              0
                                                       0
                                                                 0 9.587421e-05
## CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0 0.00000e+00
## CSI034 0.000000e+00 1.136945e-04
                                              0
                                                       0
                                                                 0 1.894908e-04
```

```
## CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
   CSI056 1.959286e-05 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
   CSI066 0.000000e+00 3.833694e-05
                                             0
                                                       0
                                                                 0 0.00000e+00
##
              Otu03082 Otu03083
                                      Otu03084 Otu03085 Otu03086 Otu03087
##
   CSI002 0.000000e+00
                               0 1.362194e-05
                                                       0
                                                                 0
                                                                          0
                                                       0
                                                                 0
                                                                          0
##
   CSI013 0.000000e+00
                               0 0.00000e+00
                                                                 0
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                          0
   CSI034 0.000000e+00
                               0 5.684725e-05
                                                       0
                                                                 0
                                                                          0
   CSI045 6.530186e-05
                               0 0.00000e+00
                                                       Λ
                                                                 0
                                                                          0
                                                       Λ
                                                                 0
   CSI056 0.000000e+00
                               0 0.000000e+00
                                                                          0
   CSI066 3.833694e-05
                               0 0.00000e+00
                                                                 0
                                                                          0
##
          Otu03088
                        Otu03089 Otu03090 Otu03091
                                                         Otu03092 Otu03093
##
   CSI002
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                                                          0
##
   CSI013
                  0 2.237065e-04
                                         0
                                                   0 0.00000e+00
                                                                          0
  CSI023
                  0 0.000000e+00
                                                    6.123074e-05
                                                                          0
##
                                         0
   CSI034
                    1.894908e-05
                                         0
                                                     3.789817e-05
                                                                          0
##
                  0
                                         0
##
   CSI045
                   3.265093e-05
                                                     0.000000e+00
                                                                          0
   CSI056
                   0.000000e+00
                                         0
                                                     0.000000e+00
                                                                          0
##
                                         0
##
   CST066
                  0
                   0.000000e+00
                                                   0
                                                     0.000000e+00
                                                                          0
##
          Otu03094
                        Otu03095 Otu03096 Otu03097
                                                     Otu03098
                                                                   Otu03099
##
  CSI002
                  0 0.000000e+00
                                         Λ
                                                   0
                                                            0 0.000000e+00
  CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0 0.000000e+00
## CSI023
                                                   0
                  0 0.00000e+00
                                         0
                                                            0 0.00000e+00
##
   CSI034
                  0 0.00000e+00
                                         0
                                                   0
                                                            0 1.894908e-05
##
   CST045
                  0 0.000000e+00
                                         0
                                                   0
                                                            0 0.000000e+00
   CSI056
                  0 0.000000e+00
                                         0
                                                   0
                                                            0 0.00000e+00
                                         0
                                                   0
##
   CSI066
                  0 1.916847e-05
                                                            0 0.00000e+00
##
              Otu03100 Otu03101
                                      Otu03102 Otu03103
                                                             Otu03104 Otu03105
##
   CSI002 0.000000e+00
                               0 0.00000e+00
                                                       0 1.362194e-05
                                                                              0
   CSI013 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                              0
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI034 0.000000e+00
                               0 0.000000e+00
                                                       0 1 136945e-04
                                                                              0
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
##
   CSI056 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI066 1.916847e-05
                               0 1.916847e-05
                                                       0 0.00000e+00
                                                                              0
##
                                               Otu03109
          Otu03106 Otu03107
##
                                  Ot:1103108
                                                             Otu03110 Otu03111
## CSI002
                  0
                           0 9.535356e-05 0.000000e+00 0.000000e+00
                                                                              0
## CSI013
                  0
                           0 6.391614e-05 0.000000e+00 0.000000e+00
                                                                              0
  CSI023
                  0
                             2.041025e-05 0.000000e+00 0.000000e+00
                                                                              0
                  0
                             0.000000e+00 0.000000e+00 1.894908e-05
##
  CST034
                                                                              0
                             0.000000e+00 0.000000e+00 0.000000e+00
   CSI045
                  0
                                                                              0
                             0.000000e+00 5.877858e-05 1.959286e-05
                                                                              0
##
   CST056
                  0
##
   CST066
                  \cap
                           0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                              0
##
              Otu03112 Otu03113
                                      Otu03114 Otu03115 Otu03116 Otu03117
   CSI002 0.000000e+00
                               0 5.448775e-05
                                                       0
                                                                 0
                                                                          0
   CSI013 0.000000e+00
                               0 3.195807e-05
                                                       0
                                                                 0
                                                                          0
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                                                                 0
                                                                          0
   CSI034 0.000000e+00
                               0 3.221344e-04
                                                       0
                               0 0.000000e+00
   CSI045 1.306037e-04
                                                       0
                                                                 0
                                                                          0
##
   CSI056 1.959286e-05
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                               0 0.000000e+00
                                                                 0
                                                                          0
##
   CSI066 1.150108e-04
                                                       0
##
              Otu03118
                            Otu03119
                                          Otu03120
                                                        Otu03121 Otu03122
## CSI002 1.362194e-05 0.000000e+00 0.000000e+00 4.086581e-05
                                                                         0
## CSI013 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                         0
```

```
## CSI023 0.000000e+00 0.000000e+00 0.000000e+00 2.041025e-05
                                                                         0
   CSI034 1.894908e-05 0.000000e+00 5.684725e-05 1.136945e-04
                                                                         0
   CSI045 9.795279e-05 3.265093e-05 3.265093e-05 0.000000e+00
                                                                         0
   CSI056 0.000000e+00 3.918572e-05 3.918572e-05 0.000000e+00
                                                                         0
##
   CSI066 0.000000e+00 9.584236e-05 5.750542e-05 0.000000e+00
                                                                         0
          Otu03123 Otu03124
                                  Otu03125
                                               Otu03126 Otu03127 Otu03128
##
##
  CSI002
                           0 0.000000e+00 1.362194e-05
                                                                0
                                                                          0
## CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
##
  CSI023
                  0
                           Ω
                             0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                                                                0
                                                                          0
##
  CSI034
                  0
                           0
                             0.000000e+00 1.894908e-05
   CSI045
                  0
                             0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                  0
                                                                0
                                                                          0
##
   CSI056
                           0
                             0.000000e+00 1.959286e-05
##
   CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                        Otu03130
##
          Otu03129
                                      Otu03131 Otu03132
                                                             Otu03133 Otu03134
  CSI002
                  0 0.000000e+00 4.086581e-05
                                                       0 0.000000e+00
##
                                                                              0
   CSI013
                   0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
                                                                              0
##
##
   CSI023
                   0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI034
                   0.000000e+00 3.789817e-05
                                                       0 3.789817e-05
                                                                              0
                   3.265093e-05 0.000000e+00
##
  CSI045
                                                       0 0.00000e+00
                                                                              0
##
   CSI056
                   0.000000e+00 0.000000e+00
                                                       0 5.877858e-05
                                                                              0
##
   CST066
                  Λ
                    1.725162e-04 0.000000e+00
                                                       0 0.000000e+00
                                                                              O
          Otu03135
                                      Otu03137 Otu03138 Otu03139
##
                        Ot:1103136
                                                                       0t.1103140
## CSI002
                                                       0
                  0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
##
   CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
##
  CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 2.041025e-05
   CSI034
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.000000e+00
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0
##
                                                                0 0.000000e+00
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
                                                                0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
                                                       0
##
   CSI066
##
              Otu03141 Otu03142 Otu03143 Otu03144 Otu03145
                                                                   Otu03146
##
   CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 3.195807e-05
   CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                              0.000000e+00
                               0
                                         0
                                                   0
   CSI034 0.000000e+00
                                                              0.000000e+00
   CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                              0.000000e+00
                               0
                                         0
                                                   0
##
   CSI056 0.000000e+00
                                                            0.000000e+00
##
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
##
              Otu03147 Otu03148
                                      Otu03149 Otu03150 Otu03151 Otu03152
   CSI002 0.000000e+00
                               0 0.000000000
                                                       0
                                                                0
                                                                          0
   CSI013 0.000000e+00
                                                       Λ
                                                                0
                                                                          0
##
                               0 0.000000000
   CSI023 0.000000e+00
                                                                0
                               0 0.000000000
                                                       0
                                                                          0
   CSI034 5.684725e-05
                               0 0.000000000
                                                       0
                                                                0
                                                                          0
   CSI045 0.000000e+00
                               0 0.0001632546
                                                       0
                                                                0
                                                                          0
                                                       0
                                                                0
                                                                          0
   CSI056 3.918572e-05
                               0 0.000000000
                                                                0
   CSI066 0.000000e+00
                               0 0.000000000
                                                       0
                                                                          0
##
              Otu03153 Otu03154 Otu03155
                                               Otu03156 Otu03157
                                                                  Otu03158
   CSI002 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
                               0
                                                                0
                                                                          0
   CSI013 0.000000e+00
                                         0 0.00000e+00
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
   CSI034 0.000000e+00
                               0
                                           0.000000e+00
                                                                0
                                                                          0
   CSI045 0.000000e+00
                               0
                                                                0
                                                                          0
                                         0 0.00000e+00
   CSI056 3.918572e-05
                               0
                                         0 3.918572e-05
                                                                0
                                                                          0
                                         0 0.000000e+00
##
   CSI066 1.916847e-05
                               0
                                                                0
                                                                          0
##
          Otu03159 Otu03160 Otu03161
                                          Otu03162
                                                        Otu03163 Otu03164
```

```
## CSI002
                                      0 0.00000000 0.000000e+00
                                                                           0
  CSI013
                            0
                                      0 0.000000000 0.000000e+00
##
                  0
                                                                           0
  CSI023
                  0
                            0
                                      0 0.000000000 0.000000e+00
                                                                           0
  CSI034
                  0
                            0
                                        0.00000000 0.000000e+00
                                                                           0
##
##
   CSI045
                  0
                            0
                                        0.00000000 3.265093e-05
                                                                           0
                            0
                                      0 0.00000000 0.000000e+00
                                                                           0
##
   CSI056
                  0
##
   CSI066
                  0
                                      0 0.000651728 1.916847e-05
                                                                           0
               Otu03165
##
                             Otu03166 Otu03167 Otu03168 Otu03169 Otu03170
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
                                              0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.000000e+00
                                                        0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI034 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                            0
   CSI066 1.916847e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
##
##
           Otu03171 Otu03172 Otu03173
                                            Otu03174 Otu03175 Otu03176 Otu03177
## CSI002
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
   CSI013
                  0
                            0
                                      0 3.195807e-05
                                                              0
                                                                       0
                                                                                 0
                                       0.000000e+00
  CSI023
                            0
                                                             0
                                                                                 0
##
                  0
                                                                       0
##
   CSI034
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
                                                                                 0
##
  CSI045
                  0
                            0
                                        3.265093e-05
                                                              Λ
                                                                       0
                                                                                 0
   CSI056
                            0
                                       0.000000e+00
                                                              0
                                                                       0
                                                                                 0
##
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
##
  CSI066
                  0
                                                                                 0
               Otu03178 Otu03179 Otu03180
##
                                                Otu03181 Otu03182 Otu03183
##
  CSI002 0.000000e+00
                                0
                                          0.000000e+00
                                                                  0
                                                                            0
   CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
   CSI034 1.894908e-05
                                0
                                          0 0.00000e+00
                                                                            0
                                                                  0
   CSI045 0.000000e+00
                                0
                                                                            0
                                          0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
           Otu03184 Otu03185 Otu03186 Otu03187 Otu03188
                                                                Otu03189 Otu03190
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 0
  CSI013
                            0
                                               0
                                                         0 0.000000000
                                                                                 0
##
                  0
                                      0
   CSI023
                  0
                            0
                                      0
                                               0
                                                         0 0.000000000
                                                                                 0
                            0
                                               0
                                                                                 0
##
  CSI034
                  0
                                      0
                                                         0 0.000000000
##
  CSI045
                  0
                            0
                                      0
                                               0
                                                         0 0.0001959056
                                                                                 0
## CSI056
                  0
                            0
                                               0
                                                         0 0.000000000
                                                                                 O
                                      0
                  0
                            0
                                               0
                                                         0 0.000000000
##
   CSI066
                                                                                 0
##
           Otu03191 Otu03192
                                  Otu03193 Otu03194 Otu03195 Otu03196 Otu03197
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI013
                  0
                             0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
                            0
##
  CSI023
                  0
                            0
                              0.00000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                                    0
                                                              0
                                                                                 0
                  0
                              0.000000e+00
                                                                       0
##
   CSI034
                                                              0
##
  CSI045
                  0
                            0 0.00000e+00
                                                    0
                                                                       0
                                                                                 0
## CSI056
                  0
                                                    0
                                                              0
                                                                                 0
                            0 3.918572e-05
                                                                       0
##
  CSI066
                  0
                            0 0.00000e+00
                                                    0
                                                                                 0
##
          Otu03198
                         Otu03199
                                       Otu03200 Otu03201
                                                               Otu03202 Otu03203
## CSI002
                  0 0.000000000 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
   CSI013
                    0.000000000 0.000000e+00
                                                        0 3.195807e-05
                                                                                0
                    0.000000000 0.000000e+00
##
   CSI023
                                                        0 0.00000e+00
                                                                                0
## CSI034
                  0 0.0000000000 0.000000e+00
                                                        0 3.789817e-05
                                                                                0
## CSI045
                  0 0.000000000 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
## CSI056
                  0 0.000000000 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
```

```
## CSI066
                 0 0.000000000 0.000000e+00
                                                      0 0.00000e+00
                                                        Otu03208 Otu03209
##
          Otu03204 Otu03205 Otu03206
                                          Otu03207
## CSI002
                 0
                           0
                                    0 1.362194e-05 5.448775e-05
                                                                         0
## CSI013
                 0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                         0
## CSI023
                 0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                         0
                 0
                           0
                                    0 0.000000e+00 2.273890e-04
                                                                         0
## CSI034
                           0
                                    0 0.000000e+00 0.000000e+00
  CSI045
                 0
                                    0 0.000000e+00 1.959286e-05
## CSI056
                 0
                           0
                                                                         0
##
  CSI066
                 0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                         0
                                                   Otu03213 Otu03214 Otu03215
##
              Otu03210
                            Otu03211 Otu03212
  CSI002 0.000000e+00 0.000000e+00
                                            0 0.00000e+00
                                                                    0
## CSI013 0.000000e+00 9.587421e-05
                                                                    0
                                                                             0
                                            0 0.00000e+00
  CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
## CSI034 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
   CSI045 1.959056e-04 0.000000e+00
                                                                    0
                                            0 0.00000e+00
                                                                             0
   CSI056 1.959286e-05 0.000000e+00
                                            0 4.114501e-04
                                                                    0
   CSI066 0.000000e+00 5.750542e-05
                                                                    0
                                            0 1.916847e-05
                                                                             0
##
          Otu03216 Otu03217 Otu03218 Otu03219
                                                    Otu03220
                                                                  0tu03221
                                              0 0.000000000 0.000000e+00
## CST002
                 0
                           0
                                    0
## CSI013
                 0
                           0
                                    0
                                              0 0.0000000000 6.391614e-05
## CSI023
                 0
                           0
                                    0
                                              0 0.000000000 0.000000e+00
## CSI034
                 0
                           0
                                    0
                                              0 0.000000000 0.000000e+00
## CSI045
                                              0 0.000000000 0.000000e+00
                           0
                 0
                                    0
                           0
## CSI056
                 0
                                    0
                                              0 0.000000000 0.000000e+00
                           0
## CSI066
                 0
                                    0
                                              0 0.000000000 0.000000e+00
          Otu03222
                        Otu03223
                                    Otu03224 Otu03225
                                                           Otu03226 Otu03227
## CSI002
                 0 6.810968e-05 0.000000000
                                                                            0
                                                     0 0.000000e+00
                                                                            0
  CSI013
                 0 0.000000e+00 0.000000000
                                                     0 0.00000e+00
## CSI023
                 0 0.000000e+00 0.000000000
                                                     0 0.000000e+00
                                                                            0
  CSI034
                 0 9.474542e-05 0.000000000
                                                     0 0.00000e+00
                                                                            0
## CSI045
                 0 0.000000e+00 0.001436641
                                                     0 0.000000e+00
                                                                            0
##
   CSI056
                 0 0.000000e+00 0.000000000
                                                     0 0.000000e+00
                                                                            0
   CSI066
                 0 0.000000e+00 0.000000000
                                                     0 5.750542e-05
                                 Otu03230 Otu03231 Otu03232 Otu03233
##
          Otu03228 Otu03229
## CSI002
                 0
                           0 4.086581e-05
                                                  0
                                                           0
                                                                     0
  CSI013
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
##
## CSI023
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
## CSI034
                 Ω
                           0 0.000000e+00
                                                  0
                                                           Λ
                                                                     0
                 0
                           0 0.000000e+00
                                                  0
                                                           0
  CSI045
                                                                     0
                                                  0
                                                           Λ
                                                                     0
##
  CSI056
                 \cap
                           0.000000e+00
   CST066
                           0 0.00000e+00
                                                           0
              Otu03234 Otu03235 Otu03236
                                               Otu03237 Otu03238
##
                                                                      0t_{11}03239
   CSI002 0.000000e+00
                               0
                                        0 0.000000e+00
                                                               0 4.086581e-05
  CSI013 0.000000e+00
                               0
                                        0 0.000000e+00
                                                                0 0.00000e+00
  CSI023 0.000000e+00
                               0
                                        0 0.00000e+00
                                                                0 0.00000e+00
## CSI034 0.000000e+00
                               0
                                        0 0.00000e+00
                                                                0 6.632179e-04
   CSI045 3.265093e-05
                               0
                                        0 0.00000e+00
                                                                0 0.00000e+00
   CSI056 0.000000e+00
                               0
                                        0 1.959286e-05
                                                                0 0.00000e+00
                                        0 0.000000e+00
   CSI066 0.000000e+00
                               0
                                                               0 0.000000e+00
          Otu03240 Otu03241 Otu03242 Otu03243 Otu03244 Otu03245
##
                                                                       Otu03246
## CSI002
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 0.00000e+00
                           0
                                              0
## CSI013
                 0
                                    0
                                                       0
                                                                 0 0.00000e+00
## CSI023
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0.000000e+00
## CSI034
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0 1.894908e-05
```

```
## CSI045
                  0
                           0
                                     0
                                                        0
                                                                  0 0.00000e+00
  CST056
                           0
                                                        0
                                                                  0 0.000000e+00
                  0
                                     0
                                              0
                                                                  0 0.000000e+00
##
   CSI066
                  0
                           0
                                     0
                                              0
                                                        0
          Otu03247 Otu03248 Otu03249 Otu03250
                                                     Otu03251
                                                                   Otu03252
##
##
   CST002
                  0
                           0
                                     0
                                              0 0.000000e+00 1.362194e-05
  CSI013
                  0
                           0
                                              0 0.000000e+00 0.000000e+00
##
                                     0
  CSI023
                           0
                                              0 0.000000e+00 0.000000e+00
                  0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI034
                  0
                           0
                                     0
   CSI045
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                           0
##
   CSI056
                  0
                                     0
                                              0 0.000000e+00 0.000000e+00
   CSI066
                  0
                           0
                                     0
                                                0.000000e+00 0.000000e+00
##
          Otu03253
                    0tu03254
                             Otu03255
                                       Otu03256
                                                     Otu03257 Otu03258
##
   CSI002
                  0
                           0
                                     0
                                              0 2.724387e-05
                                                                      0
                           0
##
   CSI013
                  0
                                     0
                                              0 0.00000e+00
                                                                      0
  CSI023
                  0
                           0
                                                                      0
##
                                     0
                                              0 0.00000e+00
   CSI034
                  0
                           0
                                     0
                                              0 1.894908e-05
                                                                      0
                  0
                           0
   CSI045
                                     0
                                              0 0.00000e+00
                                                                      0
##
   CSI056
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                      0
##
   CST066
                  0
                           0
                                     0
                                              0.000000e+00
                                                                      0
##
              Otu03259
                            Otu03260 Otu03261 Otu03262
                                                             Otu03263
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
   CSI013 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0.000000e+00
   CSI034 1.894908e-05 0.000000e+00
                                             0
                                                       0 1.894908e-05
                                             0
   CSI045 0.000000e+00 3.265093e-05
                                                       0 0.00000e+00
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                       0 1.959286e-05
   CSI066 5.750542e-05 0.000000e+00
                                             0
                                                       0 0.00000e+00
##
              Otu03264
                            Otu03265 Otu03266
                                                    Otu03267
                                                                  Otu03268
   CSI002 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.0000000000
##
   CSI013 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.0000000000
   CSI023 0.000000e+00 0.000000e+00
                                             0 8.164098e-05 0.0000000000
   CSI034 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.0000000000
   CSI045 0.000000e+00 6.530186e-05
                                             0 0.000000e+00 0.0000000000
   CSI056 0.000000e+00 9.796430e-05
                                             0 0.000000e+00 0.0000000000
   CSI066 0.000000e+00 0.000000e+00
                                             0 5.750542e-05 0.0000000000
                                                     Otu03273
          Otu03269 Otu03270 Otu03271 Otu03272
##
                                                                   Ot:1103274
## CSI002
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0001089755
## CSI013
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0000000000
  CSI023
                  0
                           0
                                              0 0.000000e+00 0.0000000000
                                     0
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0000000000
##
  CST034
                  0
                           0
                                     0
   CSI045
                                              0 0.000000e+00 0.0000000000
   CSI056
                  0
                           0
                                     0
                                              0 0.000000e+00 0.0000000000
##
##
   CSI066
                  0
                           0
                                              0 1.341793e-04 0.0000000000
                                      Otu03277 Otu03278 Otu03279
##
          0tu03275
                        Otu03276
                                                                       Otu03280
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0
##
                                                                 0 9.587421e-05
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
   CSI034
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 1.705418e-04
##
   CSI045
                   1.306037e-04 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
   CSI056
                    7.837144e-05 1.959286e-05
                                                       0
                                                                 0 0.00000e+00
##
                    7.667389e-05 7.667389e-05
##
   CST066
                  0
                                                                 0 1 916847e-05
##
          0tu03281
                        Otu03282 Otu03283 Otu03284
                                                         Otu03285 Otu03286
## CSI002
                  0 1.362194e-05
                                         0
                                                   0 0.00000e+00
                                                                          0
## CSI013
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
```

```
## CSI023
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
                                         0
                                                                          0
##
  CST034
                  0 7.579634e-05
                                                    1.894908e-05
                                                     0.000000e+00
   CSI045
                  0 0.000000e+00
                                         0
                                                                          0
   CSI056
                  0 0.000000e+00
                                         0
                                                     0.000000e+00
                                                                          0
##
##
   CST066
                  0 0.000000e+00
                                                   0 0.00000e+00
                                                                          0
                                          Otu03289 Otu03290 Otu03291 Otu03292
##
              Otu03287
                            Otu03288
   CSI002 2.724387e-05 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                               0
   CSI013 6.391614e-05 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                               0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                               0
                                                                     0
   CSI034 1.894908e-05 0.000000e+00 0.000000e+00
                                                           0
                                                                               0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                                                                               0
                                                                     0
   CSI056 0.000000e+00 0.000000e+00 7.837144e-05
                                                           0
                                                                               0
   CSI066 0.000000e+00 5.750542e-05 0.000000e+00
                                                           0
                                                                     0
                                                                               0
          Otu03293 Otu03294 Otu03295 Otu03296 Otu03297
##
                                                          Otu03298
                                                                    Otu03299
##
  CSI002
                           0
                                     0
                                              0
                                                        0
                                                                  0
                  0
                                                                           0
##
   CSI013
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                           0
                                                        0
                                                                  0
##
  CSI023
                  0
                                     0
                                              0
                                                                           0
   CSI034
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                              0
                                                        0
                                                                  0
                                                                           0
##
  CSI045
                                     0
##
   CSI056
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
##
   CST066
                  Λ
                           0
                                     Λ
                                              0
                                                        0
                                                                  0
                                                                           0
          Otu03300
                        Otu03301 Otu03302
                                                Otu03303 Otu03304
                                                                       Otu03305
##
## CSI002
                                                                 0 0.000000e+00
                  0 0.00000e+00
                                         0.000000e+00
##
   CSI013
                   3.195807e-05
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
  CSI023
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0.000000e+00
   CSI034
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.000000e+00
   CSI045
##
                  0
                   0.000000e+00
                                         0 6.530186e-05
                                                                 0 0.000000e+00
##
   CSI056
                   0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI066
                  0 0.000000e+00
                                                                 0 0.000000e+00
##
                                         0 3.833694e-05
##
          Otu03306
                    Otu03307 Otu03308
                                           Otu03309 Otu03310
                                                                   Otu03311
## CSI002
                  0
                           0
                                     0 5.448775e-05
                                                            0 0.000000e+00
##
   CSI013
                  0
                           0
                                     0 2.237065e-04
                                                            0 0.000000e+00
##
   CSI023
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.00000e+00
                  0
                           0
   CSI034
                                       2.273890e-04
                                                            0 0.00000e+00
##
   CSI045
                  0
                           0
                                       0.000000e+00
                                                              0.000000e+00
##
                           0
                                     0 0.000000e+00
##
   CST056
                  0
                                                            0 3.918572e-05
##
   CSI066
                  0
                                     0 0.00000e+00
                                                            0 0.00000e+00
##
              0tu03312
                            Otu03313 Otu03314 Otu03315
                                                             0 \pm 1103316
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
   CSI013 0.000000e+00 3.195807e-05
                                             0
                                                       0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                                             0
   CSI034 0.000000e+00 1.894908e-05
                                             0
                                                       0 0.00000e+00
   CSI045 3.265093e-05 0.000000e+00
                                              0
                                                       0 1.632546e-04
                                              0
   CSI056 1.959286e-05 0.000000e+00
                                                       0 5.877858e-05
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
##
                            Otu03318 Otu03319
              Otu03317
                                                    Otu03320
                                                                  Otu03321
   CSI002 0.000000e+00 1.362194e-05
                                             0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 3.195807e-05
                                             0 1.917484e-04 6.391614e-05
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI034 3.789817e-05 1.894908e-05
                                             0 1.515927e-04 0.000000e+00
   CSI045 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI056 3.918572e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
   CSI066 1.916847e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
          Otu03322 Otu03323 Otu03324 Otu03325 Otu03326 Otu03327 Otu03328
```

```
## CSI002
                  0
                            0
                                                                             0
  CSI013
##
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI023
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI034
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
                                                                   0
                                                                             0
##
  CSI056
                  0
                                      0
                                                0
                                                         0
                                                                             0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                                         Otu03334
##
          Otu03329
                    Ot:11033330
                                  Otu03331 Otu03332
                                                          Otu03333
## CSI002
                  0
                            0 0.000000e+00
                                                    0 0.0000000000 2.451949e-04
##
  CSI013
                  0
                            0
                              0.000000e+00
                                                    0 0.000000000 0.000000e+00
  CSI023
                  0
                            0
                              0.000000e+00
                                                      0.000000000 0.000000e+00
                  0
                                                      0.000000000 0.000000e+00
##
   CSI034
                            0
                              0.000000e+00
##
   CSI045
                  0
                              1.632546e-04
                                                      0.000000000 0.000000e+00
                            0
   CSI056
##
                  0
                            0 0.00000e+00
                                                    0 0.000000000 5.877858e-05
   CSI066
                  0
                            0 0.000000e+00
                                                    0 0.000000000 0.000000e+00
##
##
           Otu03335 Otu03336
                              Otu03337 Otu03338 Otu03339 Otu03340 Otu03341
  CSI002
                                                0
                                                         0
##
                  0
                            0
                                      0
                                                                   0
                                                                             0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI023
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
##
                  0
                                      0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
  CSI045
                  Λ
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
   CSI056
                            0
                                                                   0
                                                                             0
##
                  0
                            0
                                      0
                                                                   0
                                                                             0
##
  CSI066
                  0
                                                0
                                                         0
          Otu03342 Otu03343 Otu03344 Otu03345
##
                                                      Otu03346 Otu03347 Otu03348
                                                0 0.00000e+00
## CSI002
                  0
                            0
                                      0
                                                                        0
                                                                                  0
  CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
  CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
                            0
##
   CSI034
                  0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                  0
                            0
                                      0
                                                                        0
                                                                                  0
##
   CSI045
                                                0 2.612074e-04
##
   CSI056
                  0
                            0
                                      0
                                                0 1.959286e-05
                                                                        0
                                                                                  0
##
   CSI066
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
               Otu03349 Otu03350
                                       Otu03351 Otu03352
                                                               Otu03353 Otu03354
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                 0
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                        0 6.391614e-05
                                                                                 0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                 0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                        0 3.789817e-05
                                                                                 0
   CSI045 0.000000e+00
                                0 3.265093e-05
                                                        0 0.00000e+00
                                                                                 0
##
  CSI056 1.959286e-05
                                0 5.877858e-05
                                                        0 0.00000e+00
                                                                                 0
   CSI066 0.000000e+00
                                0 1.916847e-05
                                                        0 0.000000e+00
##
##
          Otu03355
                         Otu03356 Otu03357
                                                 Otu03358 Otu03359 Otu03360
                  0 2.724387e-05
##
  CSI002
                                          0 1.362194e-05
                                                                  0
                                                                            0
  CSI013
                  0 0.00000e+00
                                          0 3.195807e-05
                                                                  0
                                                                            0
##
##
   CSI023
                  0 2.041025e-05
                                          0 2.041025e-05
                                                                  0
                                                                            0
                                                                  0
   CSI034
                  0 9.474542e-05
                                          0 5.684725e-05
                                                                            0
##
   CSI045
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI056
                                                                  0
                                                                            0
##
                  0 0.00000e+00
                                          0 0.00000e+00
##
   CSI066
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
               Otu03361 Otu03362 Otu03363
                                                 Otu03364
                                                               Otu03365 Otu03366
                                          0 0.000000e+00 0.000000e+00
   CSI002 0.000000e+00
                                0
                                                                                 0
   CSI013 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
                                0
                                          0 0.000000e+00 0.000000e+00
##
   CSI023 0.000000e+00
                                                                                 0
  CSI034 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
## CSI045 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                0
## CSI056 1.959286e-05
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
```

```
## CSI066 0.000000e+00
                                       0 1.916847e-05 9.584236e-05
##
                       Ot:1103368
                                    Ot:1103369
                                                  Ot:1103370
          Ot:1103367
                                                               0t:1103371
## CSI002
                 0 0.000000e+00 1.362194e-05 0.000000e+00 0.0000000000
## CSI013
                 0 0.000000e+00 9.587421e-05 1.597904e-04 0.0000000000
## CSI023
                 0 0.000000e+00 2.041025e-05 0.000000e+00 0.0000000000
                 0 0.000000e+00 0.000000e+00 3.789817e-05 0.0000000000
## CSI034
                 ## CSI045
                 0 1.959286e-05 0.000000e+00 1.959286e-05 0.0000000000
## CSI056
## CSI066
                 0 1.916847e-05 0.000000e+00 0.000000e+00 0.0000000000
          Otu03372 Otu03373 Otu03374
##
                                         Otu03375
                                                       Otu03376 Otu03377
## CSI002
                 0
                          0
                                   0 2.724387e-05 4.086581e-05
## CSI013
                 0
                          0
                                   0 6.391614e-05 0.000000e+00
                                                                        0
## CSI023
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                        0
                          0
                                   0 0.000000e+00 2.273890e-04
## CSI034
                 0
                                                                        0
## CSI045
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                        0
## CSI056
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
                                                                        0
                 0
                          0
                                   0 0.000000e+00 0.000000e+00
## CSI066
                                                                        0
          Otu03378
                       Otu03379
                                    Otu03380
                                                  Otu03381
                                                               Otu03382
                 0 0.000000e+00 0.000000e+00 1.362194e-05 0.000000e+00
## CST002
## CSI013
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI023
                 0 2.041025e-05 0.000000e+00 0.000000e+00 0.000000e+00
## CSI034
                 0 0.000000e+00 2.463381e-04 0.000000e+00 0.000000e+00
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI045
                 0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI056
## CSI066
                 0.000000e+00 0.000000e+00 3.833694e-05 5.750542e-05
          Otu03383
                       Otu03384 Otu03385 Otu03386 Otu03387 Otu03388
## CSI002
                 0 2.724387e-05
                                       0
                                                 0
                                                          0
                                                                   0
## CSI013
                 0 0.00000e+00
                                       0
                                                 0
                                                          0
                                                                   0
                                                          0
## CSI023
                 0 0.000000e+00
                                       0
                                                 0
                                                                   0
## CSI034
                 0 0.000000e+00
                                       0
                                                 0
                                                          0
## CSI045
                 0 0.000000e+00
                                       0
                                                 0
                                                          0
                                                                   0
  CSI056
                 0 0.000000e+00
                                       0
                                                 0
                                                          0
                                                                   0
   CSI066
                 0 0.00000e+00
                                       0
                                                 0
                                                          0
                                                                   0
              Otu03389 Otu03390 Otu03391 Otu03392
##
                                                       Otu03393 Otu03394
## CSI002 0.000000e+00
                              0
                                       0
                                                 0 0.00000e+00
                                                                        0
## CSI013 0.000000e+00
                              0
                                       0
                                                                        0
                                                 0 0.000000e+00
## CSI023 0.000000e+00
                              0
                                       0
                                                 0 0.00000e+00
## CSI034 0.000000e+00
                              0
                                       0
                                                 0 0.000000e+00
                                                                        0
## CSI045 6.530186e-05
                              0
                                       0
                                                 0 0.00000e+00
                                                                        0
                              0
                                       Λ
                                                 0 0.00000e+00
## CSI056 1.175572e-04
                                                                        0
                                       0
  CSI066 3.833694e-05
                                                 0 7.667389e-05
          Otu03395 Otu03396
                                Otu03397 Otu03398 Otu03399
##
                                                                0t_{11}03400
## CSI002
                 0
                          0 0.000000e+00
                                                 0
                                                          0 0.000000e+00
                 0
                                                 0
## CSI013
                          0 0.000000e+00
                                                          0 0.00000e+00
## CSI023
                 0
                          0 0.00000e+00
                                                 0
                                                          0 0.00000e+00
## CSI034
                 0
                                                 0
                          0 0.00000e+00
                                                          0 1.894908e-05
## CSI045
                 0
                          0 0.00000e+00
                                                 0
                                                          0 5.877167e-04
                                                 0
## CSI056
                 0
                          0 1.959286e-05
                                                          0 0.000000e+00
                 0
                          0 0.00000e+00
                                                 0
                                                          0 1.916847e-05
          Otu03401 Otu03402 Otu03403 Otu03404 Otu03405 Otu03406 Otu03407
## CSI002
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0
                                                                        0
                          0
                                   0
                                                               0
## CSI013
                 0
                                             0
                                                      0
                                                                        0
## CSI023
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0
                                                                        0
## CSI034
                 0
                          0
                                   0
                                             0
                                                      0
                                                               0
                                                                        0
```

0

```
## CSI045
                  0
                            0
                                      0
                                                         0
                                                                   0
                                                                             0
  CSI056
                            0
                                                         0
                                                                   0
                                                                             0
##
                  0
                                      0
                                               0
##
   CSI066
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
               Otu03408 Otu03409
                                                                  0 \pm 1103412
                                       0t.1103410
                                                     Otu03411
##
   CSI002 0.000000e+00
                                0 0.000000e+00 1.362194e-05 0.000000000
  CSI013 0.000000e+00
                                0 0.00000e+00 0.000000e+00 0.00000000
                                0 0.000000e+00 0.000000e+00 0.000000000
   CSI023 0.000000e+00
                                0 1.894908e-05 9.474542e-05 0.000000000
  CSI034 1.894908e-05
   CSI045 6.530186e-05
                                0 0.000000e+00 0.000000e+00 0.000000000
   CSI056 0.000000e+00
                                0 0.000000e+00 1.959286e-05 0.000000000
   CSI066 0.000000e+00
                                0 0.00000e+00 0.000000e+00 0.000000000
##
          Otu03413 Otu03414
                                  Otu03415 Otu03416
                                                          Otu03417 Otu03418
##
   CSI002
                  0
                            0 5.448775e-05
                                                    0 0.000000000
                                                                            0
                            0 0.00000e+00
                                                                            0
##
   CSI013
                  0
                                                    0 0.000000000
  CSI023
                  0
                            0 0.000000e+00
                                                    0 0.000000000
                                                                            0
##
   CSI034
                  0
                              7.579634e-05
                                                    0 0.000000000
                                                                            0
                  0
                                                                            0
##
   CSI045
                            0
                             0.000000e+00
                                                    0 0.000000000
   CSI056
                  0
                              0.000000e+00
                                                    0 0.0001567429
                                                                            0
##
##
   CST066
                  0
                            0 0.000000e+00
                                                    0 0.000000000
                                                                            0
##
           Otu03419 Otu03420
                              Otu03421 Otu03422 Otu03423
                                                                Otu03424 Otu03425
##
  CSI002
                  \cap
                            0
                                      0
                                               0
                                                         0 9.535356e-05
                                                                                 Λ
  CSI013
                  0
                            0
                                      0
                                               0
                                                                                 0
                                                         0 3.195807e-05
## CSI023
                                                                                 0
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
##
   CSI034
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
                                                                                 0
                                               0
##
   CST045
                  0
                            0
                                      0
                                                         0 0.000000e+00
                                                                                 0
   CSI056
                  0
                            0
                                      0
                                               0
                                                         0 0.000000e+00
                                                                                 0
   CSI066
                  0
                            0
                                      0
                                               0
                                                                                 0
##
                                                         0 0.000000e+00
               Otu03426 Otu03427 Otu03428 Otu03429 Otu03430 Otu03431
##
                                                                         Otu03432
                                                    0
                                                                       0
                                                                                 0
##
   CSI002 0.000000e+00
                                0
                                          0
                                                              0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI034 1.894908e-05
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
                                          0
                                                              0
                                                                                 0
   CSI056 0.000000e+00
                                0
                                                    0
                                                                       0
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                 0
          Otu03433 Otu03434 Otu03435
##
                                            Ot:1103436
                                                          Ot:1103437
                                                                        Ot:1103438
## CSI002
                  0
                            0
                                      0 0.000000e+00 1.362194e-05 1.362194e-05
## CSI013
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 6.391614e-05
  CSI023
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI034
                            0
                                      0 0.000000e+00 6.530186e-05 0.000000e+00
   CSI045
                  0
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI056
##
   CSI066
                  0
                            0
                                      0 7.667389e-05 1.341793e-04 0.000000e+00
               Otu03439 Otu03440 Otu03441 Otu03442 Otu03443 Otu03444
##
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                          0
   CSI034 0.000000e+00
                                0
                                                    0
                                                              0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
   CSI056 3.722643e-04
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                0
                                          0
                                                                       0
##
   CSI066 0.000000e+00
                                                    0
                                                              0
##
               Otu03445 Otu03446
                                       Otu03447
                                                     Otu03448
                                                                   Otu03449
## CSI002 1.362194e-05
                                0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI013 2.237065e-04
                                0 0.000000e+00 0.000000e+00 6.391614e-05
```

```
## CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI034 1.326436e-04
                               0 0.000000e+00 0.000000e+00 3.789817e-05
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CST066 0.000000e+00
                               0 1.916847e-05 9.584236e-05 0.000000e+00
              Otu03450 Otu03451 Otu03452
                                               Otu03453 Otu03454
##
                                                                       Ot:1103455
   CSI002 0.000000e+00
                               0
                                         0 6.810968e-05
                                                                 0 2.724387e-05
  CSI013 0.000000e+00
                               0
                                         0 3.195807e-05
                                                                 0 6.391614e-05
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0 0.000000e+00
   CSI034 0.000000e+00
                               0
                                         0 7.579634e-05
                                                                 0 0.00000e+00
   CSI045 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
                               0
   CSI056 0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
   CSI066 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                 0 0.000000e+00
##
              Otu03456 Otu03457 Otu03458 Otu03459 Otu03460
                                                                   Otu03461
   CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
##
   CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
   CSI045 3.265093e-05
                                         0
                                                   0
                               0
                                                            0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.00000e+00
##
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
                            Otu03463 Otu03464 Otu03465
##
              Ot:1103462
                                                             Ot1103466 Ot1103467
  CSI002 0.000000e+00 0.0000000000
                                             0
##
                                                       0.0000000000
                                                                              0
   CSI013 6.391614e-05 0.00000000000
                                             0
                                                       0 0.000000000
                                                                               0
   CSI023 0.000000e+00 0.0000000000
                                             0
                                                       0 0.000000000
                                                                               0
   CSI034 1.326436e-04 0.00000000000
                                             0
                                                       0 0.000000000
                                                                               0
   CSI045 0.000000e+00 0.0000000000
                                              0
                                                                               0
                                                       0 0.0006530186
   CSI056 0.000000e+00 0.0000000000
                                              0
                                                       0 0.000000000
                                                                               0
   CSI066 0.000000e+00 0.0008625812
                                              0
                                                       0 0.000000000
                                                                               0
##
##
          Otu03468 Otu03469 Otu03470
                                           Otu03471
                                                         Otu03472 Otu03473
## CSI002
                  0
                           0
                                     0 0.000000e+00 4.086581e-05
                                                                          0
##
   CSI013
                  0
                           0
                                     0 6.391614e-05 3.195807e-05
                                                                          0
##
   CSI023
                  0
                           0
                                     0 4.082049e-05 0.000000e+00
                                                                          0
                           0
                                     0 0.000000e+00 1.894908e-05
                                                                          0
   CSI034
                  0
##
   CSI045
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
  CST056
                  0
##
   CSI066
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
              Otu03474 Otu03475
                                      0 \pm 1103476
                                                    Otu03477 Otu03478 Otu03479
   CSI002 2.724387e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
##
   CSI013 3.195807e-05
   CSI023 0.000000e+00
                               0 0.000000e+00 8.164098e-05
                                                                     0
                                                                               0
   CSI034 9.474542e-05
                               0 3.789817e-05 1.515927e-04
                                                                     0
                                                                               0
   CSI045 0.000000e+00
                               0 6.530186e-05 0.000000e+00
                                                                     0
                                                                               0
                                                                     0
                                                                               0
   CSI056 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
##
   CSI066 0.000000e+00
                               0 1.916847e-05 0.000000e+00
                                                                               0
##
                        Otu03481 Otu03482 Otu03483 Otu03484 Otu03485
                                                                        Otu03486
          Otu03480
##
  CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                                                                0
##
   CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
   CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI034
                   5.684725e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
   CSI045
                   0.000000e+00
##
  CSI056
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI066
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
          Otu03487
                        Otu03488 Otu03489 Otu03490 Otu03491 Otu03492
```

```
## CSI002
                 0 0.00000e+00
                                         0
                                                  0
                                                           0
                                                                     0
  CST013
                 0 0.000000e+00
                                         0
                                                  0
                                                           0
                                                                     0
                 0 0.000000e+00
  CSI023
                                         0
                                                  0
                                                            0
                                                                     0
  CSI034
                 0 0.000000e+00
                                         0
                                                  0
                                                           Λ
                                                                     0
##
##
   CST045
                   1.632546e-04
                                         0
                                                  0
                                                            0
                                                                     0
                  0 0.000000e+00
                                                  0
                                                            Λ
                                                                     0
##
   CSI056
                                         0
                                                  0
   CSI066
                  0 1.916847e-05
                                         0
                            Otu03494 Otu03495 Otu03496
##
              Otu03493
                                                             Otu03497 Otu03498
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
                                             0
   CSI013 0.000000e+00 0.000000e+00
                                                      0 3.195807e-05
                                                                             0
   CSI023 2.041025e-05 2.041025e-05
                                             0
                                                      0 0.00000e+00
                                                                             0
   CSI034 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                             0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.000000e+00
                                                                             0
                                             0
                                                      0 0.00000e+00
   CSI056 0.000000e+00 0.000000e+00
                                                                             0
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                                             0
                                                      0 1.916847e-05
##
              Otu03499 Otu03500
                                     Otu03501 Otu03502
                                                             Otu03503 Otu03504
   CSI002 4.086581e-05
                               0 0.000000e+00
##
                                                      0 6.810968e-05
                                                                             0
   CSI013 3.195807e-05
                               0 3.195807e-05
                                                      0 0.00000e+00
                                                                             0
  CSI023 0.000000e+00
                                                      0 0.00000e+00
                               0 0.00000e+00
                                                                             0
   CSI034 2.273890e-04
                               0 0.00000e+00
                                                      0 5.684725e-05
                                                                             0
   CSI045 3.265093e-05
                               0 0.00000e+00
                                                      0 0.00000e+00
                                                                             O
   CSI056 0.000000e+00
                               0 0.000000e+00
                                                      0 0.00000e+00
  CSI066 0.000000e+00
##
                               0 0.00000e+00
                                                      0 0.000000e+00
                                                                             0
                                               Otu03508 Otu03509
              Otu03505 Otu03506 Otu03507
                                                                      Ot:1103510
                               0
## CSI002 0.000000e+00
                                        0 1.362194e-05
                                                                0 0.00000e+00
   CSI013 0.000000e+00
                               0
                                         0 6.391614e-05
                                                                0 0.000000e+00
   CSI023 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.00000e+00
                               0
   CSI034 0.000000e+00
                                         0 3.789817e-05
                                                                0 7.579634e-05
                               0
   CSI045 0.000000e+00
                                         0 3.265093e-05
                                                                0 0.00000e+00
   CSI056 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
##
   CSI066 3.833694e-05
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
##
              Otu03511 Otu03512 Otu03513
                                               Otu03514 Otu03515
                                                                      0 \pm 1103516
   CSI002 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
   CSI013 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.0004474130
   CSI023 4.082049e-05
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
   CSI034 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
   CSI045 1.306037e-04
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
  CSI056 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.000000000
   CSI066 0.000000e+00
                               0
                                                                0 0.000000000
                                         0.000000e+00
##
          Otu03517
                        Otu03518
                                     Otu03519 Otu03520 Otu03521
                                                                      Ot:1103522
  CSI002
                 0 4.086581e-05 5.448775e-05
                                                      0
                                                                0 0.00000e+00
## CSI013
                 0 0.000000e+00 3.195807e-05
                                                      0
                                                                0 0.00000e+00
  CSI023
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 4.082049e-05
                                                      0
                  0 0.000000e+00 5.684725e-05
                                                                0 0.00000e+00
  CSI034
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
## CSI056
                   1.175572e-04 3.918572e-05
                                                      0
                                                                0 1.959286e-05
##
   CSI066
                 0
                   0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
                        Otu03524 Otu03525 Otu03526 Otu03527 Otu03528
##
          Otu03523
## CSI002
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                     0
##
  CSI013
                 0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                     0
                                        0
                                                  0
                                                           0
                                                                     0
##
  CSI023
                  0.0.000000e+00
## CSI034
                 0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                     0
## CSI045
                 0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                     0
## CSI056
                 0 3.918572e-05
                                         0
                                                  0
                                                            0
                                                                     0
```

```
## CSI066
                  0 0.00000e+00
                                         0
                                                            0
                                                                     0
                            Otu03530 Otu03531
##
              Ot:1103529
                                                   Otu03532 Otu03533 Otu03534
## CSI002 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI013 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                    0
                                                                              0
   CSI023 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                    0
                                                                              0
  CSI034 0.000000e+00 0.0000000000
                                                                    0
                                             0 5.684725e-05
                                                                              0
   CSI045 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                    0
                                                                              0
  CSI056 7.837144e-05 0.0000000000
                                             0.000000e+00
                                                                    0
                                                                              0
   CSI066 0.000000e+00 0.0000000000
                                             0 0.000000e+00
                                                                    0
                                                                              0
              Otu03535 Otu03536 Otu03537 Otu03538 Otu03539
##
                                                                  Otu03540
  CSI002 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
                               0
                                         0
## CSI013 0.000000e+00
                                                  0
                                                            0 6.391614e-05
  CSI023 2.041025e-05
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
## CSI034 7.579634e-05
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
  CSI045 0.000000e+00
                               0
                                         0
                                                  0
                                                            0.0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                  0
                                                              0.000000e+00
                               0
                                         0
   CSI066 0.000000e+00
                                                  0
                                                            0 0.00000e+00
##
          Otu03541 Otu03542 Otu03543 Otu03544
                                                    Otu03545 Otu03546 Otu03547
## CST002
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI013
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI023
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               O
                           0
                                                                               0
## CST034
                  0
                                     0
                                              0 0.00000e+00
                                                                      0
## CSI045
                           0
                  0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
                           0
##
  CSI056
                  0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI066
                  0
                           0
                                              0 0.000000e+00
                                                                     0
                                                                               0
##
          Otu03548
                        Otu03549
                                     Otu03550 Otu03551 Otu03552 Otu03553
                  0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
## CSI002
                                                      0
                                                                0
##
  CSI013
                  0 0.000000e+00 1.597904e-04
                                                      0
                                                                          0
## CSI023
                  0 0.000000e+00 2.041025e-05
                                                      0
                                                                0
                                                                          0
  CSI034
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                          0
## CSI045
                  0 2.285565e-04 0.000000e+00
                                                      0
                                                                0
                                                                          0
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                          0
##
   CSI066
                  0 3.833694e-05 1.916847e-05
                                                      0
                                                                0
                                                                          0
##
          Otu03554
                        Otu03555
                                     Otu03556
                                                   Otu03557 Otu03558 Otu03559
   CSI002
                  0 0.000000e+00 0.000000e+00 4.086581e-05
                                                                    0
##
                                                                              0
  CSI013
                  0 3.195807e-05 3.195807e-05 6.391614e-05
                                                                    0
##
                                                                              0
## CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
## CSI034
                  0 3.789817e-05 1.894908e-05 7.579634e-05
                                                                    0
                                                                              0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
   CST045
                                                                    0
                  0 0.000000e+00 3.918572e-05 0.000000e+00
##
  CST056
                                                                    0
                                                                              0
   CST066
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                              0
          Otu03560 Otu03561
                                 0tu03562
                                               Otu03563
##
                                                             Ot:1103564
##
  CSI002
                  0
                           0 0.000000e+00 0.0000000000 1.362194e-05
## CSI013
                  0
                           0 0.000000e+00 0.000000000 0.000000e+00
## CSI023
                  0
                           0 0.000000e+00 0.000000000 0.000000e+00
                  0
                           0 7.579634e-05 0.0005116253 1.136945e-04
## CSI034
##
  CSI045
                  0
                           0 0.000000e+00 0.000000000 0.000000e+00
##
   CSI056
                  0
                           0 0.000000e+00 0.000000000 0.000000e+00
##
   CST066
                  0
                           0 0.000000e+00 0.000000000 0.000000e+00
##
              Otu03565
                            Otu03566 Otu03567 Otu03568 Otu03569 Otu03570
  CSI002 2.724387e-05 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                          0
                                                                0
## CSI013 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                          0
## CSI023 0.000000e+00 6.123074e-05
                                             0
                                                      0
                                                                0
                                                                          0
## CSI034 1.326436e-04 5.684725e-05
                                             0
                                                      0
                                                                0
                                                                          0
```

```
## CSI045 0.000000e+00 4.244621e-04
                                             0
                                                       0
                                                                0
                                                                          0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
                                                                          0
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                                0
                                                                          0
##
              Otu03571 Otu03572 Otu03573 Otu03574
                                                         Otu03575 Otu03576
##
   CSI002 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
                               0
                                         0
                                                                          0
##
   CSI013 0.000000e+00
                                                  0 0.00000e+00
   CSI023 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
   CSI034 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0
                                                    1.306037e-04
                                                                          0
                                         0
                                                                          Λ
   CSI056 1.959286e-05
                               0
                                                    0.000000e+00
   CSI066 1.916847e-05
                               0
                                         0
                                                    0.000000e+00
                                                                          0
                            Otu03578 Otu03579
##
              Otu03577
                                                     Otu03580 Otu03581 Otu03582
##
   CSI002 0.000000e+00 0.000000e+00 0.0000000 2.724387e-05
                                                                     0
                                                                               0
                                                                     0
                                                                               0
   CSI013 0.000000e+00 0.000000e+00 0.0000000 0.000000e+00
   CSIO23 0.000000e+00 0.000000e+00 0.0000000 0.000000e+00
                                                                     0
                                                                               0
   CSI034 0.000000e+00 0.000000e+00 0.0000000 0.000000e+00
                                                                      0
                                                                               0
   CSIO45 0.000000e+00 0.000000e+00 0.0000000 0.000000e+00
                                                                               0
                                                                     0
   CSI056 5.877858e-05 0.000000e+00 0.0000000 0.000000e+00
                                                                               0
   CSI066 0.000000e+00 1.916847e-05 0.0000000 3.833694e-05
                                                                               0
##
##
          Otu03583 Otu03584
                                 Otu03585
                                               Otu03586 Otu03587 Otu03588
##
  CSI002
                  0
                           0 0.000000e+00 1.362194e-05
                                                                0
                                                                          0
  CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                                                                0
##
   CSI034
                  0
                           0 0.000000e+00 0.000000e+00
                                                                          0
                                                                0
                                                                          0
##
  CST045
                  0
                           0 6.530186e-05 0.000000e+00
   CSI056
                  0
                           0 5.877858e-05 0.000000e+00
                                                                0
                                                                          0
   CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
##
##
          Otu03589
                        Otu03590 Otu03591
                                               0tu03592
                                                             Otu03593 Otu03594
                                         0 0.000000e+00 2.724387e-05
##
   CSI002
                  0 1.362194e-05
                                                                              0
##
   CSI013
                  0 0.000000e+00
                                         0 1.917484e-04 0.000000e+00
                                                                              0
##
   CSI023
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
##
   CSI034
                  0
                   0.000000e+00
                                         0 3.789817e-05 1.515927e-04
                                                                              0
##
   CSI045
                   0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
                                         0 0.000000e+00 0.000000e+00
##
   CSI056
                   0.000000e+00
                                                                              0
                   0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                              0
##
   CSI066
                  0
          Otu03595
                        Otu03596
                                      Otu03597 Otu03598 Otu03599
##
                                                                      Ot:1103600
##
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 8.173162e-05
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.000000e+00
##
   CSI023
                  0 0.000000e+00 0.000000e+00
##
                                                       0
                                                                0.000000e+00
                  0 0.000000e+00 0.000000e+00
                                                       Λ
##
  CST034
                                                                0 3.789817e-05
                  0 3.265093e-05 0.000000e+00
   CSI045
                                                       0
                                                                0 0.00000e+00
                  0 5.877858e-05 0.000000e+00
                                                       0
                                                                0 1.959286e-05
##
   CST056
##
   CST066
                  0 0.000000e+00 1.916847e-05
                                                       0
                                                                \cap
                                                                  0.000000e+00
              Otu03601 Otu03602 Otu03603
##
                                               Otu03604 Otu03605
                                                                       Otu03606
   CSI002 6.810968e-05
                               0
                                         0 1.362194e-05
                                                                0 0.000000000
   CSI013 0.000000e+00
                               0
                                         0 9.587421e-05
                                                                0 0.000000000
   CSI023 0.000000e+00
                               0
                                         0 4.082049e-05
                                                                0 0.000000000
   CSI034 1.326436e-04
                               0
                                         0 1.515927e-04
                                                                0 0.000000000
   CSI045 0.000000e+00
                               0
                                         0.0.000000e+00
                                                                0.000000000
   CSI056 0.000000e+00
                               0
                                           0.000000e+00
                                                                0 0.0001175572
##
   CSI066 0.000000e+00
                                                                0.000000000
##
                                           0.000000e+00
                                         0
##
          Otu03607 Otu03608
                                 Otu03609
                                               Otu03610 Otu03611 Otu03612
## CSI002
                  0
                           0 0.000000e+00 0.0000000000
                                                                0
                                                                          0
## CSI013
                  0
                           0 0.000000e+00 0.0000000000
                                                                0
                                                                          0
```

```
## CSI023
                            0 0.000000e+00 0.0000000000
                                                                 0
                                                                           0
                  0
                            0 0.000000e+00 0.0000000000
                                                                 0
##
  CST034
                                                                           0
  CSI045
                  0
                            0 0.000000e+00 0.0000000000
                                                                 0
                                                                           0
  CSI056
                  0
                             5.877858e-05 0.0000000000
                                                                 0
                                                                           0
##
##
   CST066
                  0
                            0 0.000000e+00 0.0000000000
                                                                 0
                                                                           0
          Otu03613
                        Otu03614 Otu03615 Otu03616
##
                                                          Otu03617 Otu03618
  CSI002
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
## CSI013
                  0 0.00000e+00
                                         0
                                                   0.000000e+00
                                                                           0
##
   CSI023
                  0 0.000000e+00
                                         0
                                                     0.000000e+00
                                                                           0
                                          0
                                                                           Λ
##
   CSI034
                  0 0.000000e+00
                                                     7.579634e-05
   CSI045
                  0 0.000000e+00
                                          0
                                                     3.265093e-05
                                                                           0
                                         0
                                                                           0
##
   CSI056
                  0 0.000000e+00
                                                     1.959286e-05
##
   CSI066
                  0 0.000000e+00
                                         0
                                                     3.833694e-05
                                                                           0
                                                   0
                                                                        Otu03624
##
               Otu03619 Otu03620 Otu03621 Otu03622
                                                          Otu03623
   CSI002 1.362194e-05
                                0
                                         0
                                                   0 0.000000e+00 5.448775e-05
##
   CSI013 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                                     0.000000e+00 0.000000e+00
                                0
                                         0
   CSI034 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
                                                     0.000000e+00 0.000000e+00
                                          0
   CSI045 0.000000e+00
                                0
   CSI056 0.000000e+00
                                0
                                          0
                                                     5.877858e-05 0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00 0.000000e+00
               Otu03625 Otu03626
                                 Otu03627 Otu03628
                                                     Otu03629
##
                                                                   Ot:1103630
## CSI002 2.724387e-05
                                                   0
                                0
                                          0
                                                             0 2.724387e-05
   CSI013 5.113291e-04
                                0
                                          0
                                                   0
                                                             0 3.195807e-05
   CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.00000e+00
   CSI034 1.894908e-05
                                0
                                          0
                                                   0
                                                             0 7.579634e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.00000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
##
   CSI066 1.916847e-05
##
               Otu03631 Otu03632
                                      Otu03633 Otu03634
                                                              Otu03635 Otu03636
##
   CSI002 0.000000e+00
                                0 2.724387e-05
                                                       0 0.00000e+00
                                                                               0
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
   CSI023 0.000000e+00
                                0 4.082049e-05
                                                       0 0.00000e+00
                                                                               0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                       0 1.894908e-05
                                                                               0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI056 0.000000e+00
                                                       0 0.000000e+00
##
                                0 1.175572e-04
                                                                               0
##
   CSI066 7.667389e-05
                                0 0.00000e+00
                                                       0 5.750542e-05
                                                                               0
##
          Otu03637 Otu03638
                                  Otu03639 Otu03640 Otu03641 Otu03642
## CSI002
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
  CSI013
                                                   0
                                                             0
                                                                       0
##
                  0
                            0 2.556646e-04
                                                             0
                                                                       0
  CSI023
                  0
                             0.000000e+00
                                                   0
  CSI034
                  0
                                                   0
                                                             0
                                                                       0
##
                            0
                             0.000000e+00
##
   CSI045
                  0
                              0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                   0
                                                             0
                                                                       0
   CSI056
                  Λ
                            0 0.00000e+00
##
                                                   0
                                                             0
                                                                       0
##
   CSI066
                            0 0.00000e+00
                                                     Otu03647
##
               Otu03643 Otu03644 Otu03645 Otu03646
                                                               Otu03648
                                                                         Otu03649
   CSI002 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
                                0
                                                                       0
                                                                                0
   CSI013 0.000000e+00
                                          0
                                                   0
                                                             0
   CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI034 1.894908e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI045 0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
##
          Otu03650
                        Otu03651 Otu03652 Otu03653 Otu03654 Otu03655
```

```
## CSI002
                 0 1.362194e-05
                                                  0
                                                            0
                                                                     0
                 0 0.000000e+00
##
  CST013
                                         0
                                                  0
                                                           0
                                                                     0
                 0 0.000000e+00
  CSI023
                                         0
                                                  0
                                                            0
                                                                     0
  CSI034
                 0 7.579634e-05
                                         0
                                                  0
                                                           Λ
                                                                     0
##
##
   CST045
                  0 0.000000e+00
                                         0
                                                  0
                                                            0
                                                                     0
                                                            Λ
   CSI056
                  0 0.000000e+00
                                         0
                                                  0
                                                                     0
##
##
   CSI066
                  0 0.000000e+00
                                         0
                                                           0
##
              Otu03656
                            Otu03657 Otu03658
                                                   Otu03659 Otu03660 Otu03661
   CSI002 0.000000e+00 1.362194e-05
                                             0 2.724387e-05
                                                                    0
                                                                              0
   CSI013 0.000000e+00 0.000000e+00
                                             0 6.391614e-05
                                                                    0
                                                                              0
   CSI023 8.164098e-05 0.000000e+00
                                             0 0.00000e+00
                                                                    0
                                                                              0
   CSI034 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                    0
                                                                              0
   CSI045 0.000000e+00 0.000000e+00
                                             0 3.265093e-05
                                                                    0
                                                                              0
   CSI056 0.000000e+00 0.000000e+00
                                             0 2.351143e-04
                                                                    0
                                                                              0
   CSI066 3.833694e-05 0.000000e+00
                                             0 0.000000e+00
                                                                    0
                                                                              0
##
              Otu03662 Otu03663
                                     Otu03664 Otu03665
                                                             Otu03666 Otu03667
                               0 2.724387e-05
##
   CSI002 2.724387e-05
                                                      0 0.000000000
                                                                              0
   CSI013 0.000000e+00
                               0 0.00000e+00
                                                      0 0.000000000
                                                                              0
  CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0.0000000000
                                                                              0
   CSI034 1.894908e-05
                               0 1.705418e-04
                                                      0 0.000000000
                                                                              0
##
   CSI045 0.000000e+00
                               0 0.000000e+00
                                                      0 0.000000000
                                                                              0
   CSI056 0.000000e+00
                               0 0.000000e+00
                                                      0.0000000000
##
  CSI066 1.916847e-05
                               0 0.00000e+00
                                                      0 0.0003450325
                                                                              0
##
              Otu03668
                            Otu03669 Otu03670 Otu03671 Otu03672 Otu03673
## CSI002 2.724387e-05 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                         0
   CSI013 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                         0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                         0
   CSI034 7.579634e-05 0.000000e+00
                                             0
                                                      0
                                                                0
                                                                         0
                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                      0
                                                                         0
   CSI056 0.000000e+00 5.094144e-04
                                             0
                                                      0
                                                                0
                                                                         0
##
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                                0
                                                                         0
##
              Otu03674 Otu03675 Otu03676 Otu03677
                                                        Otu03678 Otu03679
##
   CSI002 0.000000e+00
                               0
                                         0
                                                  0 0.0005312555
                                                                         0
   CSI013 0.000000e+00
                               0
                                         0
                                                  0 0.000000000
                                                                         0
   CSI023 0.000000e+00
                               0
                                         0
                                                    0.000000000
                                                                         0
                                         0
   CSI034 0.000000e+00
                               0
                                                    0.000000000
                                                                         0
   CSI045 0.000000e+00
                               0
                                         0
                                                    0.000000000
                                                                         0
  CSI056 0.000000e+00
                                         0
                                                  0 0.000000000
                                                                         0
##
                               0
  CSI066 0.000000e+00
##
                               0
                                                  0 0.000000000
                                                                          0
##
                            Otu03681
              Ot:1103680
                                          Ot:1103682
                                                       Ot1103683 Ot1103684
  CSI002 1.089755e-04 2.724387e-05 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 2.876226e-04 0.000000e+00 0.000000e+00
                                                                        0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI034 1.894908e-05 1.894908e-05 0.000000e+00 7.579634e-05
                                                                        0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI056 0.000000e+00 0.000000e+00 3.918572e-05 0.000000e+00
                                                                        0
##
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
              Otu03685 Otu03686
                                     Otu03687 Otu03688 Otu03689
##
                                                                      Otu03690
  CSI002 0.000000e+00
                               0 2.451949e-04
                                                      0
                                                                0 1.362194e-05
   CSI013 3.195807e-05
                               0 3.195807e-05
                                                      0
                                                                0 1.917484e-04
                                                      0
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                                0 0.00000e+00
## CSI034 1.894908e-04
                               0 0.00000e+00
                                                      0
                                                                0 5.684725e-05
## CSI045 0.000000e+00
                               0.0.000000e+00
                                                      0
                                                                0.000000e+00
## CSI056 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
```

```
## CSI066 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0 5.750542e-05
##
                            Otu03692 Otu03693
              Ot:1103691
                                                   Ot:1103694
                                                                 Ot:1103695
## CSI002 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
## CSI013 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
## CSI034 0.000000e+00 2.652872e-04
                                             0 1.894908e-05 7.579634e-05
   CSI045 1.306037e-04 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
## CSI056 0.000000e+00 1.567429e-04
   CSI066 1.916847e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
                                     Otu03698 Otu03699 Otu03700 Otu03701
##
          Otu03696
                        Otu03697
## CSI002
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
## CSI013
                                                                0
                                                                         0
                 0 0.000000e+00 1.597904e-04
                                                      0
## CSI023
                 0 0.000000e+00 2.041025e-05
                                                      0
                                                                0
                                                                         0
                                                                0
## CSI034
                 0 0.000000e+00 9.474542e-05
                                                      0
                                                                         0
## CSI045
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                         0
## CSI056
                 0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                         0
                 0 0.000000e+00 0.000000e+00
                                                                0
##
  CST066
                                                      0
                                                                         0
          Otu03702 Otu03703 Otu03704
                                       Otu03705
                                                        Otu03706 Otu03707
                                    0 1.362194e-05 0.000000e+00
## CST002
                 0
                           0
                                                                         0
## CSI013
                 0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                         0
## CSI023
                 0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                         0
## CSI034
                 0
                           0
                                    0 1.894908e-05 1.894908e-05
## CSI045
                           0
                                    0 0.000000e+00 0.000000e+00
                 0
                                                                         0
                           0
                                    0 0.000000e+00 3.918572e-05
## CSI056
                 0
## CSI066
                 0
                           0
                                    0 1.916847e-05 5.750542e-05
                                                                         0
          Otu03708 Otu03709 Otu03710 Otu03711 Otu03712 Otu03713 Otu03714
## CSI002
                 0
                           0
                                                       0
                                                                 0
                                                                          0
                                    0
                                              0
## CSI013
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI023
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI034
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI045
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI056
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
##
   CSI066
                 0
                           0
                                    0
                                              0
                                                       0
                                                                          0
                                               Otu03718 Otu03719
##
          Otu03715
                        Otu03716 Otu03717
                                                                      Otu03720
## CSI002
                 0 0.00000e+00
                                        0 2.724387e-05
                                                                0 0.00000e+00
## CSI013
                 0 0.000000e+00
                                        0 0.000000e+00
                                                                0 0.000000e+00
## CSI023
                 0 0.00000e+00
                                        0 0.000000e+00
                                                                0 0.000000e+00
## CSI034
                 0 0.000000e+00
                                        0 0.000000e+00
                                                                0 0.000000e+00
                 0 0.000000e+00
                                        0 6.530186e-05
  CST045
                                                                0 0.000000e+00
                 0 0.000000e+00
                                        0 7.837144e-05
##
  CSI056
                                                                0 1.959286e-05
   CST066
                 0 0.000000e+00
                                         0 3.833694e-05
                                                                0.000000e+00
##
                                         Otu03723 Otu03724 Otu03725 Otu03726
              0t.1103721
                            Ot:1103722
  CSI002 0.000000e+00 0.0000000000 2.724387e-05
                                                          0
                                                                    0
                                                                             0
                                                                    0
  CSI013 0.000000e+00 0.000000000 0.000000e+00
                                                           0
                                                                             0
   CSI023 0.000000e+00 0.0000000000 0.000000e+00
                                                                    0
                                                                             0
  CSI034 0.000000e+00 0.0000000000 0.000000e+00
                                                           0
                                                                    0
                                                                             0
   CSI045 0.000000e+00 0.000000000 0.000000e+00
                                                           0
                                                                    0
                                                                              0
   CSI056 0.000000e+00 0.0001763357 1.959286e-05
                                                                    0
   CSI066 0.000000e+00 0.000000000 0.000000e+00
                                                          0
                                                                    0
##
          Otu03727 Otu03728 Otu03729 Otu03730 Otu03731 Otu03732
                                                                   Otu03733
## CSI002
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
                           0
                                                                 0
## CSI013
                 0
                                    0
                                              0
                                                       0
                                                                          0
## CSI023
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI034
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
```

```
## CSI045
                            0
                                                         0
                                                                            0
  CST056
                                               0
                                                        0
                                                                  0
                                                                            0
##
                  0
                            0
                                     0
##
   CSI066
                  0
                            0
                                               0
                                                        0
                                                                  0
                                                                            0
##
          Otu03734
                        0tu03735
                                      Otu03736 Otu03737 Otu03738
                                                                        Otu03739
##
   CST002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
   CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0
##
                                                                 0 0.000000e+00
                  0 0.000000e+00 0.000000e+00
   CSI023
                                                       0
                                                                 0 0.00000e+00
                                                                 0 0.000000e+00
## CSI034
                  0 9.474542e-05 0.000000e+00
                                                       0
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                 0 3.265093e-05
                                                       Λ
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
   CSI066
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
               Otu03740
                            Otu03741 Otu03742 Otu03743
                                                              Otu03744 Otu03745
##
   CSI002 2.724387e-05 0.000000e+00
                                              0
                                                       0 4.086581e-05
                                                                               0
                                              0
                                                       0 0.00000e+00
   CSI013 0.000000e+00 0.000000e+00
                                                                               0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0 2.041025e-05
                                                                               0
   CSI034 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                       0 3.265093e-05
                                                                               0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                       0 3.833694e-05
   CSI066 0.000000e+00 1.916847e-05
##
                                              0
                                                                               0
##
               Otu03746
                            Otu03747 Otu03748
                                                    Otu03749 Otu03750 Otu03751
   CSI002 0.000000e+00 1.089755e-04
##
                                              0 0.000000e+00
                                                                     0
                                                                               0
   CSI013 0.000000e+00 6.391614e-05
                                              0 0.000000e+00
                                                                     0
                                                                               0
  CSI023 0.000000e+00 0.000000e+00
                                              0.000000e+00
                                                                     0
                                                                               0
   CSI034 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                     0
                                                                               0
                                                                     0
   CSI045 3.265093e-05 0.000000e+00
                                              0 0.000000e+00
                                                                               0
   CSI056 1.959286e-05 0.000000e+00
                                              0 1.763357e-04
                                                                     0
                                                                               0
   CSI066 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                     0
                                                                               0
##
               Otu03752 Otu03753 Otu03754 Otu03755
##
                                                         Otu03756 Otu03757
                                         0
                                                   0 0.000000e+00
                                                                           0
##
   CSI002 8.173162e-05
                                0
   CSI013 6.391614e-05
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI023 6.123074e-05
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI034 0.000000e+00
                                0
                                         0
                                                   0 9.474542e-05
                                                                           0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI056 0.000000e+00
                                         0
                                0
                                                   0 5.877858e-05
                                                                           0
   CSI066 0.000000e+00
                                0
                                                   0 0.00000e+00
                                                                           0
##
          Otu03758 Otu03759 Otu03760
                                           Otu03761
                                                         Otu03762 Otu03763
##
## CSI002
                  0
                            0
                                     0 5.448775e-05 0.000000e+00
                                                                           0
## CSI013
                  0
                            0
                                     0 6.391614e-05 0.000000e+00
                                                                           0
## CSI023
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                            0
                                     0 1.326436e-04 0.000000e+00
                                                                           0
## CST034
                  \cap
                            0
   CSI045
                  0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
  CSI056
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
##
   CST066
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                    Otu03765 Otu03766 Otu03767 Otu03768 Otu03769 Otu03770
##
          Otu03764
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
   CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                                                                  0
##
   CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
##
   CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
   CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                                                         0
                                                                  0
                                                                            0
##
   CST066
                  0
                            0
                                     0
                                               0
##
               Otu03771
                            0tu03772
                                           Otu03773 Otu03774 Otu03775 Otu03776
## CSI002 1.362194e-05 0.000000e+00 2.724387e-05
                                                            0
                                                                     0
                                                                               0
## CSI013 6.391614e-05 0.000000e+00 2.237065e-04
                                                            0
                                                                     0
                                                                               0
```

```
## CSI023 2.041025e-05 0.000000e+00 0.000000e+00
                                                                               0
   CSI034 0.000000e+00 0.000000e+00 1.326436e-04
                                                           0
                                                                     0
                                                                               0
   CSI045 0.000000e+00 0.000000e+00 3.265093e-05
                                                                     0
                                                                               0
   CSI056 0.000000e+00 1.959286e-05 0.000000e+00
                                                            n
                                                                     0
                                                                               0
##
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
                        Otu03778 Otu03779 Otu03780 Otu03781 Otu03782
##
          Ot:1103777
  CSI002
                  0 4.086581e-05
                                         0
                                                   0
                                                            0
                                                                      0
## CSI013
                  0 3.195807e-05
                                         0
                                                   0
                                                             0
                                                                      0
##
   CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                         0
                                                   0
                                                             0
##
   CSI034
                  0 5.684725e-05
                                                                      Λ
   CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                         0
                                                   0
                                                             0
                                                                      0
##
   CSI056
                  0 0.000000e+00
##
   CSI066
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
##
               Otu03783
                            Otu03784 Otu03785 Otu03786
                                                              Otu03787 Otu03788
   CSI002 1.362194e-05 0.000000e+00
                                             0
                                                       0 0.000000e+00
                                                                               0
##
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                               0
   CSI034 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                               0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0 0.00000e+00
                                                                               0
   CSI056 0.000000e+00 5.877858e-05
                                              0
                                                       0 0.00000e+00
                                                                               0
##
   CSI066 0.000000e+00 0.000000e+00
                                              O
                                                       0 1.916847e-05
                                                                               0
          Otu03789
                        Otu03790 Otu03791
                                               Otu03792
##
                                                              Ot:1103793
## CSI002
                                         0 0.0001225974 0.000000e+00
                  0.000000e+00
   CSI013
                                         0 0.000000000 0.000000e+00
##
                  0 0.00000e+00
##
  CSI023
                  0 0.00000e+00
                                         0 0.0000000000 2.041025e-05
   CSI034
                  0 0.000000e+00
                                         0 0.0000000000 3.789817e-05
   CSI045
                                           0.000000000 0.000000e+00
##
                  0 0.000000e+00
##
   CSI056
                  0 0.000000e+00
                                         0 0.000000000 0.000000e+00
                  0 0.000000e+00
                                         0 0.000000000 0.000000e+00
##
   CSI066
##
               Otu03794 Otu03795 Otu03796
                                           Otu03797
                                                         Otu03798 Otu03799
##
   CSI002 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
   CSI013 3.195807e-05
                                0
                                         0
                                                   0 0.000000e+00
                                                                          0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                          0
                                0
                                         0
   CSI034 0.000000e+00
                                                    0.000000e+00
                                                                          0
   CSI045 0.000000e+00
                                0
                                         0
                                                     0.000000e+00
                                                                          0
   CSI056 0.000000e+00
                                0
                                         0
                                                                          0
##
                                                    9.796430e-05
##
   CSI066 7.667389e-05
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
##
               Otu03800 Otu03801
                                      Otu03802 Otu03803 Otu03804 Otu03805
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI013 0.000000e+00
                                                       Λ
                                                                 0
                                                                          0
##
                                0 1.278323e-04
   CSI023 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                          0
   CSI034 0.000000e+00
                                                       0
                                                                 0
                                                                          0
                                0 0.00000e+00
                                                                 0
   CSI045 6.530186e-05
                                0 0.00000e+00
                                                       0
                                                                          0
                                                                 0
                                                                          0
   CSI056 9.796430e-05
                                0 2.351143e-04
                                                       0
   CSI066 0.000000e+00
                                0 0.00000e+00
                                                       0
          Otu03806 Otu03807 Otu03808 Otu03809
##
                                                     Otu03810
                                                                   Otu03811
##
  CSI002
                  0
                           0
                                     0
                                               0 0.000000e+00 0.000000e+00
   CSI013
##
                  0
                           0
                                     0
                                               0 1.278323e-04 0.000000e+00
  CSI023
                  0
                           0
                                     0
                                               0 0.000000e+00 2.041025e-05
   CSI034
                  0
                           0
                                     0
                                                1.894908e-05 1.894908e-05
##
                  0
                           0
                                               0 0.000000e+00 0.000000e+00
##
   CSI045
                                     0
##
  CSI056
                  0
                           0
                                     0
                                               0 0.000000e+00 0.000000e+00
## CSI066
                  0
                           0
                                     0
                                               0 1.533478e-04 0.000000e+00
##
          Otu03812
                        Otu03813 Otu03814 Otu03815 Otu03816
                                                                   Otu03817
```

```
## CSI002
                  0 0.00000e+00
                                                             0 0.00000e+00
  CST013
                  0 0.000000e+00
                                          0
                                                             0 0.000000e+00
##
                                                   0
                  0 0.000000e+00
   CSI023
                                          0
                                                   0
                                                             0 0.00000e+00
  CSI034
                  0 0.000000e+00
                                          0
                                                   0
                                                               5.684725e-05
##
##
   CSI045
                  0 0.000000e+00
                                          0
                                                   0
                                                               0.000000e+00
                                                   0
##
   CSI056
                  0 1.959286e-05
                                          0
                                                             0 0.00000e+00
##
   CSI066
                  0 0.000000e+00
                                          0
                                                             0 0.00000e+00
                             Otu03819 Otu03820
                                                     Otu03821 Otu03822 Otu03823
##
               Otu03818
   CSI002 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                O
   CSI013 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
   CSI034 0.000000e+00 0.000000e+00
                                                                      0
                                              0 0.00000e+00
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
                                              0 1.959286e-05
   CSI056 0.000000e+00 3.918572e-05
                                                                      0
                                                                                0
   CSI066 0.000000e+00 1.916847e-05
                                                                      0
                                                                                0
                                              0 0.00000e+00
##
           Otu03824 Otu03825 Otu03826
                                            Otu03827 Otu03828 Otu03829
                                                                         Otu03830
  CSI002
##
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
   CSI013
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
                                      0 0.000000e+00
  CSI023
                                                                                 0
##
                  0
                            0
                                                             0
                                                                       0
##
   CSI034
                  0
                            0
                                        0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
  CSI045
                  0
                            0
                                       0.000000e+00
                                                             Λ
                                                                       0
                                                                                 O
   CSI056
                            0
                                       1.959286e-05
                                                             0
                                                                                 0
##
                  0
                                                             0
##
  CSI066
                  \cap
                            0
                                      0 0.000000e+00
                                                                       0
                                                                                 0
                        Otu03832 Otu03833 Otu03834 Otu03835
##
          Otu03831
                                                               Otu03836
                                                                         0tu03837
## CST002
                  0 5.448775e-05
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI013
                  0 3.195807e-05
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI023
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
##
   CSI034
                  0 3.789817e-05
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI045
                  0 0.000000e+00
  CSI056
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI066
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
          Otu03838 Otu03839 Otu03840 Otu03841 Otu03842 Otu03843 Otu03844
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
  CSI013
                                                                   0
                                                                            0
##
                  0
                            0
                                      0
                                               0
                                                         0
   CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
                            0
                                               0
##
  CST034
                  0
                                      0
                                                         0
                                                                   0
                                                                            0
##
   CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
  CSI056
                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
                  0
                                      0
                            0
                                                         0
##
   CSI066
                  0
                                               0
                                                                   0
                                                                            0
##
               Otu03845 Otu03846
                                      Otu03847 Otu03848
                                                              Ot:1103849
  CSI002 0.000000e+00
                                0 1.362194e-05
                                                        0 0.00000e+00
  CSI013 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
   CSI023 4.082049e-05
                                0 0.00000e+00
                                                        0 4.082049e-05
   CSI034 0.000000e+00
                                0 5.684725e-05
                                                        0 1.136945e-04
   CSI045 3.265093e-05
                                0 0.00000e+00
                                                        0 0.00000e+00
   CSI056 5.877858e-05
                                0 1.959286e-05
                                                        0 5.877858e-05
##
   CSI066 0.000000e+00
                                0 1.916847e-05
                                                        0 0.00000e+00
##
               Otu03850
                             Otu03851
                                           Otu03852
                                                         Otu03853 Otu03854
   CSI002 1.362194e-05 0.000000e+00 0.0000000000 2.724387e-05
                                                                          0
   CSI013 0.000000e+00 0.000000e+00 0.0000000000 2.876226e-04
                                                                          0
   CSIO23 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                          0
   CSI034 5.684725e-05 0.000000e+00 0.000000000 3.789817e-05
                                                                          0
  CSI045 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
                                                                          0
## CSI056 0.000000e+00 1.959286e-05 0.000000000 0.000000e+00
                                                                          0
```

```
## CSI066 0.000000e+00 0.000000e+00 0.000000000 0.000000e+00
##
          Ot:1103855
                                     Ot:1103857
                        Ot:1103856
                                                   Ot:1103858
                                                                 Ot:1103859
## CSI002
                  0 4.086581e-05 0.000000e+00 2.724387e-05 0.000000e+00
## CSI013
                  0 0.000000e+00 6.391614e-05 0.000000e+00 0.000000e+00
## CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00 2.041025e-05
                  0 9.474542e-05 5.684725e-05 0.000000e+00 1.894908e-05
## CSI034
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI045
                  0 0.000000e+00 0.000000e+00 1.959286e-05 1.959286e-05
## CSI056
  CSI066
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
          Otu03860 Otu03861 Otu03862 Otu03863
##
                                                    Otu03864 Otu03865
## CSI002
                 0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
## CSI013
                  0
                           0
                                    0
                                                                     0
                                              0 0.00000e+00
## CSI023
                  0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
                           0
## CSI034
                  0
                                    0
                                              0 3.789817e-05
                                                                     0
## CSI045
                  0
                           0
                                    0
                                                                     0
                                              0.0.000000e+00
## CSI056
                  0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                  0
                           0
                                    0
##
  CSI066
                                              0 0.00000e+00
                                                                     0
##
              Otu03866 Otu03867 Otu03868
                                               Otu03869
                                                             Otu03870 Otu03871
## CSI002 2.724387e-05
                                         0 0.000000e+00 2.724387e-05
                               0
                                                                              0
## CSI013 0.000000e+00
                               0
                                         0 3.195807e-05 0.000000e+00
                                                                              0
## CSI023 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
## CSI034 0.000000e+00
                               0
                                         0 1.894908e-05 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
## CSI045 0.000000e+00
                               0
                                                                              0
  CSI056 3.918572e-05
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
## CSI066 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
              Otu03872 Otu03873 Otu03874 Otu03875 Otu03876
                                                                  Otu03877
## CSI002 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 2.724387e-05
  CSI013 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
## CSI023 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
  CSI034 1.894908e-05
                               0
                                         0
                                                  0
                                                            0 1.136945e-04
  CSI045 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.000000e+00
   CSI066 0.000000e+00
                               0
                                         0
                                                  0
                                                              0.000000e+00
              Otu03878 Otu03879 Otu03880 Otu03881 Otu03882
##
                                                                  Otu03883
## CSI002 2.724387e-05
                               0
                                         0
                                                  0
                                                            0 1.225974e-04
## CSI013 3.195807e-04
                               0
                                         0
                                                  0
                                                            0.000000e+00
## CSI023 2.041025e-05
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
## CSI034 1.894908e-05
                               0
                                         0
                                                  0
                                                            0 3.789817e-05
  CSI045 0.000000e+00
                               0
                                         0
                                                  0
                                                            0 0.00000e+00
  CSI056 0.000000e+00
                               0
                                         Λ
                                                  0
                                                            0.000000e+00
   CSI066 0.000000e+00
                                                            0 5.750542e-05
          Otu03884 Otu03885 Otu03886
                                                        Otu03888 Otu03889
##
                                           0t_{11}03887
## CSI002
                  0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                         0
                           0
                                                                          0
## CSI013
                  0
                                     0 0.000000e+00 0.000000e+00
## CSI023
                  0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                          0
## CSI034
                  0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                          0
## CSI045
                  0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                          0
                  0
                           0
                                                                          0
##
  CSI056
                                    0 1.959286e-05 1.175572e-04
##
   CST066
                  0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                          0
              Otu03890 Otu03891 Otu03892 Otu03893
                                                        Otu03894
                                                                      Otu03895
                                         0
                                                  0 0.000000e+00 0.0000000000
## CSI002 1.362194e-05
                               0
                               0
                                         0
## CSI013 0.000000e+00
                                                  0 0.000000e+00 0.0000000000
                                                  0 0.000000e+00 0.0000000000
## CSI023 0.000000e+00
                               0
                                         0
## CSI034 1.136945e-04
                               0
                                         0
                                                  0 0.000000e+00 0.0000000000
```

```
## CSI045 0.000000e+00
                               0
                                         0
                                                   0 0.000000e+00 0.0000000000
   CSI056 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.0001959286
                               0
   CSI066 3.833694e-05
                               0
                                         0
                                                   0 1.916847e-05 0.0000000000
##
          Otu03896
                                      Otu03898 Otu03899 Otu03900 Otu03901
                        Otu03897
##
  CST002
                  0 0.0000000000 4.086581e-05
                                                       0
                                                                 0
  CSI013
                  0 0.0000000000 6.391614e-05
                                                       Λ
                                                                 0
                                                                          0
##
  CSI023
                  0 0.000000000 0.000000e+00
                                                       0
                                                                 0
                                                                          0
## CSI034
                  0 0.0000000000 1.894908e-05
                                                       0
                                                                 0
                                                                          0
   CSI045
                  0 0.0002612074 0.000000e+00
                                                       Λ
                                                                 0
                                                                          0
                                                       Λ
                                                                 Λ
   CSI056
                  0 0.0000000000 1.959286e-05
                                                                          0
   CSI066
                  0 0.000000000 0.000000e+00
                                                                 0
##
          Otu03902 Otu03903
                                 Otu03904 Otu03905
                                                         Otu03906 Otu03907
##
  CSI002
                  0
                           0 0.000000e+00
                                                   0 0.000000000
                                                                          0
## CSI013
                  0
                           0 0.00000e+00
                                                   0 0.0001278323
                                                                          0
## CSI023
                           0 0.000000e+00
                                                   0 0.000000000
                                                                          0
                  0
  CSI034
                  0
                           0 0.00000e+00
                                                   0 0.000000000
                                                                          0
##
                  0
##
  CSI045
                           0 0.00000e+00
                                                   0 0.000000000
                                                                          0
   CSI056
                           0 0.00000e+00
                                                   0 0.000000000
##
##
   CST066
                  0
                           0 0.000000e+00
                                                   0 0.000000000
                                                                          0
##
          Otu03908 Otu03909 Otu03910 Otu03911 Otu03912 Otu03913 Otu03914
## CSI002
                  Λ
                           0
                                     0
                                              \cap
                                                        0
                                                                  Λ
                                                                           0
## CSI013
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI034
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                                     0
                                              0
                                                        0
## CST045
                  0
                           0
                                                                  0
                                                                           0
  CSI056
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
   CSI066
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
##
##
          Otu03915 Otu03916
                                 Otu03917
                                               Otu03918 Otu03919 Otu03920
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
## CSI002
## CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
##
  CST034
                  0
                           0 0.000000e+00 7.579634e-05
                                                                 0
                                                                          0
##
   CSI045
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
                           0 5.877858e-05 0.000000e+00
                                                                 0
##
  CSI056
                  0
                                                                          0
                  0
                           0 3.833694e-05 0.000000e+00
                                                                 0
                                                                          0
##
   CSI066
          Otu03921
                        Otu03922
                                      Otu03923 Otu03924
##
                                                             Ot:1103925
## CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
## CSI023
                  0 0.000000e+00 4.082049e-05
                                                       0 0.000000e+00
                  0 0.000000e+00 1.894908e-05
##
  CST034
                                                       0 3.789817e-05
                  0 0.000000e+00 0.000000e+00
   CSI045
                                                       0 0.00000e+00
                  0 1.959286e-05 0.000000e+00
                                                       0 0.000000e+00
##
   CST056
##
   CST066
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
              Otu03926 Otu03927 Otu03928
                                               Otu03929 Otu03930 Otu03931
##
   CSI002 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
   CSI013 0.000000e+00
                               0
                                                                 0
                                         0 0.00000e+00
                                                                          0
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                               0
                                                                 0
   CSI034 0.000000e+00
                                         0 0.00000e+00
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0 3.265093e-05
                                                                 0
                                                                          0
   CSI056 0.000000e+00
                               0
                                         0 1.959286e-05
                                                                 0
                                                                          0
                                         0 0.000000e+00
                               0
                                                                 0
##
   CSI066 5.750542e-05
                                                                          0
##
          Otu03932 Otu03933 Otu03934 Otu03935
                                                     Otu03936 Otu03937 Otu03938
## CSI002
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
## CSI013
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                               0
```

```
## CSI023
                  0
                            0
                                               0 0.00000e+00
                                                                      0
                                                                                0
                                                1.894908e-05
  CST034
                  0
                            0
                                                                      0
                                                                                0
##
                                     0
                                                0.000000e+00
##
   CSI045
                  0
                            0
                                     0
                                                                      0
                                                                                0
  CSI056
                                                                                0
                  0
                            0
                                     0
                                                0.000000e+00
                                                                      0
##
##
   CST066
                            0
                                     0
                                               0 3.833694e-05
                                                                      0
                                                                                0
               Otu03939 Otu03940 Otu03941 Otu03942
##
                                                         Otu03943
                                                                       Ot:1103944
   CSI002 0.0000000000
                                0
                                         0
                                                   0 0.000000e+00 4.086581e-05
                                                   0 0.000000e+00 0.000000e+00
  CSI013 0.0009907002
                                0
                                         0
   CSI023 0.0000000000
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
                                         0
   CSI034 0.0000000000
                                0
                                                     3.789817e-05 0.000000e+00
   CSI045 0.0000000000
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
                                0
                                         0
                                                     0.000000e+00 1.959286e-05
##
   CSI056 0.0000000000
##
   CSI066 0.0000000000
                                0
                                         0
                                                   0
                                                     7.667389e-05 0.000000e+00
               Otu03945 Otu03946
                                  Otu03947 Otu03948
##
                                                     Otu03949 Otu03950
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
   CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI023 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                0
   CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
               Otu03951 Otu03952
                                      Otu03953 Otu03954 Otu03955 Otu03956
##
  CSI002 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
                                0 0.00000e+00
   CSI013 0.000000e+00
                                                                 0
                                                                           0
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI045 0.000000e+00
                                                       0
                                                                 0
                                                                           0
                                0 0.00000e+00
                                                                 0
   CSI056 0.000000e+00
                                0 3.918572e-05
                                                       0
                                                                           0
                                                       0
                                                                 0
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                                           0
##
##
               0tu03957
                            Otu03958 Otu03959
                                                Otu03960
                                                         Otu03961
                                                                   Otu03962
##
   CSI002 0.000000e+00 1.362194e-05
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI013 0.000000e+00 6.391614e-05
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
                                              0
                                                                 0
                                                                           0
   CSI034 0.000000e+00 0.000000e+00
                                                       0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI056 0.000000e+00 1.959286e-05
                                              0
                                                       0
                                                                 0
                                                                           0
##
##
   CSI066 1.916847e-05 3.833694e-05
                                              0
                                                       0
                                                                 0
                                                                           0
##
          0 \pm 1103963
                        Otu03964 Otu03965
                                                Otu03966 Otu03967
                                                                        Otu03968
  CSI002
                  0 0.000000e+00
                                                                 0 0.000000e+00
##
                                         0 2.724387e-05
                  0 0.000000e+00
   CSI013
##
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI023
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.000000e+00
   CSI034
                                                                 0 0.00000e+00
##
                  0 0.000000e+00
                                         0 0.00000e+00
##
   CSI045
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.00000e+00
                    1.959286e-05
                                         0 0.000000e+00
                                                                 0 0.000000e+00
##
   CSI056
##
   CSI066
                  0 1.916847e-05
                                         0 0.00000e+00
                                                                 0
                                                                   0.000000e+00
                                                                        Otu03974
               Otu03969 Otu03970
                                      Otu03971 Otu03972 Otu03973
##
##
   CSI002 1.362194e-05
                                0 0.0004495239
                                                       0
                                                                 0 0.00000e+00
                                                       0
   CSI013 6.391614e-05
                                0 0.000000000
                                                                 0 0.00000e+00
   CSI023 0.000000e+00
                                0.000000000
                                                       0
                                                                 0 0.000000e+00
   CSI034 0.000000e+00
                                0 0.000000000
                                                       0
                                                                   0.000000e+00
   CSI045 0.000000e+00
                                                       0
                                0 0.000000000
                                                                 0 0.00000e+00
##
   CSI056 0.000000e+00
                                0 0.000000000
                                                       0
                                                                 0 0.00000e+00
##
   CSI066 0.000000e+00
                                0.0000000000
                                                       0
                                                                 0 0.000000e+00
##
          Otu03975
                        Otu03976 Otu03977 Otu03978 Otu03979
                                                                   Otu03980
```

```
## CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
  CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
##
                  0 0.000000e+00
                                                              0 0.000000e+00
  CSI023
                                          0
                                                    0
                                                    0
  CSI034
                  0 0.000000e+00
                                          0
                                                                0.000000e+00
##
##
   CSI045
                    0.000000e+00
                                          0
                                                    0
                                                                0.000000e+00
                  0 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
##
  CSI056
                                          0
##
   CSI066
                  0 0.000000e+00
                                                              0
                                                                5.750542e-05
                    Otu03982 Otu03983 Otu03984
##
          Otu03981
                                                      Otu03985
                                                                     Otu03986
## CSI002
                  0
                            0
                                      0
                                                0 1.362194e-05 0.0000000000
                            0
                                      0
##
  CSI013
                  0
                                                0 3.195807e-05 0.0006711195
  CSI023
                  0
                            0
                                      0
                                                0 0.000000e+00 0.0000000000
  CSI034
                  0
                            0
                                      0
                                                0 9.474542e-05 0.0000000000
##
##
   CSI045
                  0
                            0
                                      0
                                                0 0.000000e+00 0.0000000000
                            0
                                                0 0.000000e+00 0.0000000000
##
   CSI056
                  0
                                      0
##
   CSI066
                  0
                            0
                                      0
                                                0 0.000000e+00 0.0000000000
##
               Otu03987 Otu03988 Otu03989 Otu03990 Otu03991 Otu03992 Otu03993
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI002 1.362194e-05
                                                                        0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                              0
  CSI066 0.000000e+00
                                0
                                                    0
                                                                        0
                                                                                  0
##
                                          0
           Otu03994 Otu03995 Otu03996
                                            Otu03997
                                                      Otu03998
                                                                Otu03999
##
                                                                          Otu04000
                            0
## CSI002
                  0
                                      0 0.000000000
                                                              0
                                                                        0
                                                                                  0
  CSI013
                  0
                            0
                                      0 0.0003834969
                                                              0
                                                                        0
                                                                                  0
## CSI023
                  0
                            0
                                        0.000000000
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
                                                                        0
                                                                                  0
##
   CSI034
                                      0 0.0000000000
                            0
                                                              0
                                                                        0
                                                                                  0
   CSI045
                  0
                                      0 0.0000000000
##
##
  CSI056
                  0
                            0
                                      0 0.0000000000
                                                              0
                                                                        0
                                                                                  0
##
   CSI066
                  0
                            0
                                      0 0.000000000
                                                              0
                                                                        0
                                                                                  0
##
               Otu04001 Otu04002 Otu04003 Otu04004 Otu04005
                                                                     Otu04006
   CSI002 2.724387e-05
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                                0.000000e+00
   CSI034 1.326436e-04
                                0
                                          0
                                                    0
                                                              0 3.789817e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
##
  CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
##
                                       Otu04009 Otu04010 Otu04011 Otu04012
##
               Otu04007 Otu04008
  CSI002 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
  CSI013 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                                                  0
                                0 0.00000e+00
                                                        0
                                                                            0
                                                        0
                                                                  0
                                                                            0
   CSI034 1.894908e-05
                                0 0.000000e+00
   CSI045 0.000000e+00
                                                                  0
                                                                            0
                                0 0.00000e+00
                                                         0
                                                                  0
   CSI056 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                            0
##
   CSI066 0.000000e+00
                                0 1.916847e-05
                                                        0
                                                                            0
               Otu04013 Otu04014 Otu04015 Otu04016 Otu04017 Otu04018
##
  CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                    0
## CSI034 7.579634e-05
                                0
                                          0
                                                              0
                                                                        0
## CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
## CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
```

```
## CSI066 0.000000e+00
                               0 0
                                                           0
                                                                    0
##
                            Ot1104020 Ot1104021
                                                  Oti104022 Oti104023 Oti104024
              Otu04019
## CSI002 1.362194e-05 0.000000e+00
                                            0 9.535356e-05
                                                                   0
## CSI013 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
## CSI023 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
## CSI034 5.684725e-05 1.894908e-05
                                                                    0
                                            0 0.00000e+00
                                                                             0
  CSI045 0.000000e+00 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
## CSI056 3.918572e-05 0.000000e+00
                                            0 0.000000e+00
                                                                    0
                                                                             0
  CSI066 0.000000e+00 0.000000e+00
                                           0 0.000000e+00
                                                                    0
          Otu04025 Otu04026 Otu04027
                                          Otu04028 Otu04029 Otu04030 Otu04031
##
## CSI002
                 0
                          0
                                    0 0.000000000
                                                           0
                                                                    0
## CSI013
                           0
                                    0 0.000000000
                                                           0
                                                                    0
                                                                              0
                 0
## CSI023
                 0
                          0
                                    0.000000000
                                                           0
                                                                    0
                                                                              0
                          0
                                                           0
## CSI034
                 0
                                    0 0.0001136945
                                                                              0
## CSI045
                 0
                           0
                                    0.000000000
                                                           0
                                                                    0
                                                                              0
## CSI056
                 0
                           0
                                    0 0.000000000
                                                           0
                                                                    0
                                                                              0
                 0
                           0
                                    0 0.0000000000
                                                           0
                                                                    0
## CST066
                                                                              0
          Otu04032 Otu04033 Otu04034 Otu04035
                                                    Otu04036 Otu04037 Otu04038
## CST002
                 0
                          0
                                    0
                                             0 0.000000000
                                                                    0
                                                                              0
## CSI013
                 0
                           0
                                    0
                                             0 0.0002237065
                                                                    0
                                                                              0
## CSI023
                 0
                          0
                                    Ω
                                             0 0.000000000
                                                                    0
                                                                              0
## CSI034
                          0
                                             0 0.000000000
## CSI045
                          0
                                    Ω
                 0
                                             0 0.000000000
                                                                    0
                                                                              0
                 0
                          0
## CSI056
                                    0
                                             0 0.000000000
                           0
                                    0
## CSI066
                 0
                                              0 0.000000000
                                                                    0
          Otu04039 Otu04040
                                 Otu04041 Otu04042 Otu04043 Otu04044 Otu04045
## CSI002
                 0
                           0 4.086581e-05
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI013
                 0
                           0 0.00000e+00
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI023
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI034
                 0
                           0 7.579634e-05
                                                  0
                                                           0
                                                                              0
## CSI045
                 0
                          0 0.000000e+00
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI056
                 0
                          0 0.000000e+00
                                                  0
                                                           0
  CSI066
                 0
                          0 0.000000e+00
                                                  0
                                                           0
                                                                              0
##
          Otu04046
                      Otu04047 Otu04048 Otu04049 Otu04050 Otu04051 Otu04052
## CSI002
                 0 0.00000e+00
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI013
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                    0
                                                                              0
## CSI023
                 0 4.082049e-05
                                        0
                                                  0
                                                           0
                                                                              0
## CSI034
                 0 3.789817e-05
                                        0
                                                  Ω
                                                           Λ
                                                                              Λ
                                                                    0
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
  CST045
                                        Λ
                                                  Ω
                                                           Λ
##
  CST056
                 0 0.000000e+00
                                        0
  CST066
                 0 0.00000e+00
##
                            Otu04054 Otu04055 Otu04056
                                                            Otu04057 Otu04058
              0t_{11}04053
  CSI002 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                                                             0
                                            0
  CSI013 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                             0
  CSI023 0.000000e+00 0.000000e+00
                                            0
                                                      0 2.041025e-05
                                                                             0
  CSI034 0.000000e+00 1.326436e-04
                                            0
                                                      0 0.00000e+00
                                                                             0
   CSI045 0.000000e+00 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                            0
   CSI056 1.175572e-04 0.000000e+00
                                                      0 0.000000e+00
  CSI066 1.916847e-05 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                                                             0
              Otu04059
                            Otu04060
                                         Otu04061 Otu04062 Otu04063 Otu04064
## CSI002 1.362194e-05 0.000000e+00 9.535356e-05
                                                          0
                                                                   0
                                                                             0
                                                                   0
## CSI013 3.195807e-05 0.000000e+00 9.587421e-05
                                                          0
                                                                             0
## CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
                                                                             0
## CSI034 0.000000e+00 0.000000e+00 0.000000e+00
                                                          0
                                                                   0
```

```
## CSI045 0.000000e+00 0.000000e+00 3.265093e-05
                                                            0
                                                                      0
                                                                               0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                               0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                               0
##
          Otu04065 Otu04066
                                  Otu04067 Otu04068
                                                                        Otu04070
                                                         Ot:1104069
##
  CST002
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI013
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
                                                   0 0.000000e+00 0.000000e+00
  CSI023
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI034
                  0
                            0 5.684725e-05
##
   CSI045
                  0
                            0 0.000000e+00
                                                     0.000000e+00 0.000000e+00
                  Λ
##
   CSI056
                            0 7.837144e-05
                                                     3.918572e-05 0.000000e+00
   CSI066
                  0
                            0 0.00000e+00
                                                     1.341793e-04 0.000000e+00
          Otu04071
                                                         Otu04075 Otu04076
##
                        Otu04072 Otu04073 Otu04074
##
   CSI002
                  0 0.000000000
                                         0
                                                   0 4.086581e-05
                                                                           0
   CSI013
                                         0
                                                                           0
##
                  0 0.000000000
                                                   0 0.00000e+00
  CSI023
                  0 0.0000000000
                                         0
                                                   0 6.123074e-05
                                                                           0
##
   CSI034
                  0 0.0001894908
                                         0
                                                   0 0.00000e+00
                                                                           0
##
                                         0
                                                                           0
##
   CSI045
                  0.000000000
                                                   0 0.00000e+00
   CSI056
                    0.000000000
                                         0
                                                   0 0.00000e+00
                                                                           0
##
                                         0
##
   CST066
                  0 0.000000000
                                                   0 0.00000e+00
                                                                           0
##
          Otu04077
                    Otu04078 Otu04079 Otu04080 Otu04081 Otu04082
                                                                        0tu04083
##
  CSI002
                  0
                            0
                                     0
                                               0
                                                        Λ
                                                                  0 1.089755e-04
  CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 3.195807e-05
## CSI023
                  0
                                                         0
                                                                  0 0.00000e+00
                            0
                                     0
                                               0
                            0
                                               0
                                                         0
##
   CSI034
                  0
                                     0
                                                                  0 3.789817e-05
                            0
                                     0
                                               0
                                                         0
##
  CST045
                  0
                                                                  0 0.00000e+00
   CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
##
   CSI066
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
                        Otu04085 Otu04086 Otu04087 Otu04088
##
          Otu04084
                                                                   Otu04089
                                         0
                                                   0
##
   CSI002
                  0 0.00000e+00
                                                             0 1.362194e-05
   CSI013
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 6.391614e-05
##
   CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.00000e+00
##
   CSI034
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 3.789817e-05
##
   CSI045
                  0 3.265093e-05
                                         0
                                                   0
                                                             0 0.00000e+00
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
##
   CSI056
                  0 5.750542e-05
                                         0
                                                   0
                                                               0.000000e+00
##
   CSI066
                                                             0
                                  Otu04092 Otu04093 Otu04094
          Otu04090 Otu04091
                                                               Otu04095 Otu04096
##
## CSI002
                  0
                            0 1.362194e-05
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI013
                  0
                            0 3.195807e-05
                                                   0
                                                             0
                                                                      0
                                                                                0
  CSI023
                  0
                            0 2.041025e-05
                                                   0
                                                             0
                                                                      0
                                                                                0
                  0
                                                   0
                                                             Λ
                                                                      0
                                                                                O
##
  CSI034
                            0 1.894908e-05
                                                   0
                                                             0
                                                                                0
   CSI045
                  0
                            0 0.00000e+00
   CSI056
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
##
   CST066
                  0
                            0
                              1.916847e-05
                                                   0
                                                             0
                                                                      0
          Otu04097 Otu04098
                                                         Otu04101 Otu04102
##
                                  Otu04099 Otu04100
  CSI002
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
## CSI013
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
##
  CSI023
                  0
                            0 0.00000e+00
                                                   0 2.041025e-05
                                                                           0
                  0
                                                                           0
##
   CSI034
                            0 0.000000e+00
                                                   0 5.684725e-05
                            0 0.000000e+00
##
   CSI045
                  0
                                                   0 0.000000e+00
                                                                           0
##
   CSI056
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
                                                                           0
                                                   0 0.000000e+00
##
   CST066
                  0
                            0 3.833694e-05
                                                                           0
##
          0tu04103
                        Otu04104 Otu04105 Otu04106 Otu04107
                                                                   Otu04108
                                                             0 0.000000e+00
## CSI002
                  0 1.362194e-05
                                         0
                                                   0
## CSI013
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.00000e+00
```

```
## CSI023
                  0 0.00000e+00
                                         0
                                                  0
                                                            0 0.00000e+00
                  0 9.474542e-05
                                         0
                                                  0
##
  CST034
                                                              0.00000e+00
                   0.000000e+00
##
   CSI045
                                         0
                                                  0
                                                              0.00000e+00
  CSI056
                   0.000000e+00
                                         0
                                                  0
                                                              0.000000e+00
##
##
   CST066
                    0.000000e+00
                                         0
                                                  0
                                                            0 5.750542e-05
          Otu04109
                                      Otu04111 Otu04112 Otu04113
##
                        Otu04110
                                                                      Otu04114
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0 0.00000e+00
## CSI013
                  0 3.195807e-05 0.000000e+00
                                                      0
                                                                0 0.00000e+00
##
   CSI023
                   0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.000000e+00
##
   CSI034
                    1.515927e-04 0.000000e+00
                                                       0
                                                                0 0.000000e+00
   CSI045
                   3.265093e-05 0.000000e+00
                                                       0
                                                                0 0.00000e+00
                   0.000000e+00 2.351143e-04
                                                       0
##
   CSI056
                                                                0
                                                                  0.000000e+00
##
   CSI066
                    0.000000e+00 9.584236e-05
                                                      0
                                                                0 0.000000e+00
                        Otu04116
##
          Otu04115
                                      Otu04117 Otu04118 Otu04119
                                                                  Otu04120
##
  CSI002
                  0 0.000000e+00 1.362194e-05
                                                      0
                                                                0
                                                                          0
##
   CSI013
                   0.000000e+00 9.587421e-05
                                                       0
                                                                0
                                                                          0
                  0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
##
   CSI023
                                                      0
   CSI034
                   0.000000e+00 0.000000e+00
                                                       0
                                                                0
                                                                          0
   CSI045
                  0 3.265093e-05 0.000000e+00
                                                                0
                                                                          0
##
                                                      0
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0
                                                                          0
##
   CST066
                  0 0.000000e+00 0.000000e+00
                                                      Λ
                                                                0
                                                                          0
              Otu04121 Otu04122
                                      Otu04123 Otu04124 Otu04125
                                                                       Otu04126
##
  CSI002 0.0000000000
                                                                0 0.000000e+00
##
                               0 0.00000e+00
                                                      0
   CSI013 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
   CSI023 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
   CSI034 0.0005305743
                               0 5.684725e-05
                                                      0
                                                                0 0.000000e+00
   CSI045 0.0000000000
                               0 3.265093e-05
                                                      0
                                                                  0.000000e+00
   CSI056 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
   CSI066 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0 1.916847e-05
##
##
              Otu04127 Otu04128 Otu04129
                                               Otu04130 Otu04131
                                                                       0tu04132
##
   CSI002 0.000000e+00
                               0
                                         0 0.000000000
                                                                0 0.00000e+00
   CSI013 3.195807e-05
                               0
                                         0 0.000000000
                                                                0 0.000000e+00
   CSI023 0.000000e+00
                               0
                                          0.000000000
                                                                0 0.00000e+00
                               0
   CSI034 0.000000e+00
                                           0.000000000
                                                                0 0.00000e+00
                                         0
   CSI045 0.000000e+00
                               0
                                           0.0002612074
                                                                0 0.00000e+00
   CSI056 0.000000e+00
                               0
##
                                         0
                                          0.000000000
                                                                0 1.959286e-05
##
   CSI066 0.000000e+00
                                         0 0.000000000
                                                                0 0.00000e+00
##
          Otu04133 Otu04134
                                 Otu04135
                                           Otu04136 Otu04137 Otu04138
## CSI002
                  0
                           0 1.362194e-05
                                                  0
                                                            0
                                                                     0
  CSI013
                  0
                                                  0
                                                            0
                                                                     0
##
                           0 0.000000e+00
                                                  0
                                                            0
                                                                     0
   CSI023
                  0
                             0.000000e+00
  CSI034
                  0
                                                  0
                                                            0
                                                                     0
##
                           0
                             0.000000e+00
                                                  0
##
   CSI045
                  0
                           Λ
                             0.00000e+00
                                                            0
                                                                     0
                                                  0
                                                            0
                                                                     0
##
   CSI056
                  0
                             1.959286e-05
##
   CSI066
                  0
                           0 0.00000e+00
                                                            0
                                                                     0
##
              Otu04139
                                                                 Otu04143
                            Otu04140 Otu04141
                                                   Otu04142
   CSI002 0.000000e+00 1.362194e-05
                                             0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 0.000000e+00
                                             0 3.195807e-05 1.917484e-04
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI034 0.000000e+00 3.789817e-05
                                             0 1.515927e-04 0.000000e+00
   CSI045 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 1.959286e-05
##
   CSI066 1.916847e-05 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
##
          Otu04144 Otu04145 Otu04146
                                           Otu04147 Otu04148 Otu04149
```

```
## CSI002
                                     0 0.00000e+00
                                                             0
                                                                       0
## CST013
                            0
                                     0 3.195807e-05
                                                             0
                  0
                                                                       0
                                     0 0.000000e+00
## CSI023
                  0
                            0
                                                             0
                                                                       0
                            0
  CSI034
                  0
                                     0 0.00000e+00
                                                             Λ
                                                                       0
##
##
  CSI045
                  0
                            0
                                       0.000000e+00
                                                             0
                                                                       0
                            0
                                     0 0.000000e+00
                                                             Λ
                                                                       0
##
  CSI056
                  0
                            0
                                     0 0.000000e+00
   CSI066
               Otu04150 Otu04151 Otu04152
                                                              Otu04154 Otu04155
##
                                                0t.1104153
   CSI002 0.000000e+00
                                0
                                          0 0.000000e+00 5.448775e-05
                                                                                0
                                0
   CSI013 3.195807e-05
                                          0 0.000000e+00 0.000000e+00
                                                                                0
   CSI023 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                0
   CSI034 1.326436e-04
                                0
                                          0 0.000000e+00 1.894908e-04
                                                                                0
   CSI045 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                0
                                0
   CSI056 0.000000e+00
                                          0 1.959286e-05 0.000000e+00
                                                                                0
   CSI066 0.000000e+00
                                0
                                          0 0.000000e+00 1.916847e-05
##
               Otu04156 Otu04157
                                      Otu04158 Otu04159 Otu04160 Otu04161
  CSI002 2.724387e-05
                                0 0.000000e+00
                                                                 0
                                                                           0
##
                                                        0
   CSI013 1.278323e-04
                                0 0.00000e+00
                                                        0
                                                                 0
                                                                           0
  CSI023 2.041025e-05
                                0 0.00000e+00
                                                                 0
                                                                           0
                                                        0
## CSI034 9.474542e-05
                                0 0.00000e+00
                                                        0
                                                                 0
                                                                           0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                        Λ
                                                                 0
                                                                           0
   CSI056 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                 0
## CSI066 0.000000e+00
                                0 0.000000e+00
                                                                 0
                                                        0
                                                                           0
               Otu04162 Otu04163 Otu04164
                                                Otu04165 Otu04166 Otu04167
## CSI002 0.000000e+00
                                0
                                         0 1.362194e-05
                                                                 0
                                                                           0
   CSI013 6.391614e-05
                                0
                                          0 3.195807e-05
                                                                 0
                                                                           0
  CSI023 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
                                0
                                                                 0
   CSI034 0.000000e+00
                                          0 0.00000e+00
                                                                           0
                                0
                                                                 0
   CSI045 0.000000e+00
                                          0 0.000000e+00
                                                                           0
   CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
##
   CSI066 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
##
          Otu04168
                        Otu04169 Otu04170 Otu04171
                                                          Otu04172 Otu04173
## CSI002
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
  CSI013
                  0 0.000000e+00
                                          0
                                                   0 0.000000e+00
                                                                           0
##
   CSI023
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
  CSI034
                                         0
                                                   0 0.00000e+00
                                                                           0
##
                  0 0.00000e+00
   CSI045
                  0 0.000000e+00
                                          0
                                                   0 3.265093e-05
                                                                           0
##
  CSI056
                  0 0.000000e+00
                                          0
                                                   0 1.959286e-05
                                                                           0
                  0 0.000000e+00
                                          0
                                                   0 3.833694e-05
##
   CST066
##
               Otu04174 Otu04175 Otu04176 Otu04177
                                                     Otu04178 Otu04179 Otu04180
  CSI002 1.362194e-05
                                0
                                          0
                                                   0
                                                             0
## CSI013 6.391614e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
  CSI034 1.326436e-04
                                                                       Λ
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
  CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI066 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
          Otu04181 Otu04182
                                  Otu04183 Otu04184
                                                     Otu04185
                                                               Otu04186
                                                                         0tu04187
## CSI002
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI013
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI023
## CSI034
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI045
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI056
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
```

```
0
## CSI066
                 0
                           0 0.000000e+00
                                                           0
                                                                     0
##
          Otu04188 Otu04189 Otu04190
                                          Otu04191 Otu04192 Otu04193 Otu04194
                                    0 0.000000e+00
## CSI002
                 0
                           0
                                                           0
                                                                     0
## CSI013
                  0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
                                    0 0.000000e+00
## CSI023
                  0
                           0
                                                            0
                                                                     0
                                                                               0
                  0
                           0
                                    0 0.000000e+00
                                                            Λ
                                                                     0
                                                                               Λ
## CSI034
                  0
                           0
                                                            0
## CSI045
                                    0 0.00000e+00
                                    0 0.000000e+00
## CSI056
                  0
                           0
                                                            0
                                                                     0
                                                                               0
## CSI066
                  0
                           0
                                    0 0.000000e+00
                                                            0
                                                                     Λ
          Otu04195 Otu04196 Otu04197
                                                        Otu04199 Otu04200
##
                                           Otu04198
## CSI002
                  0
                           0
                                    0 1.362194e-05 0.0000000000
## CSI013
                  0
                           0
                                    0 0.000000e+00 0.0000000000
                                                                         0
## CSI023
                  0
                           0
                                    0 0.000000e+00 0.0000000000
                                                                         0
                           0
## CSI034
                  0
                                    0 0.000000e+00 0.0001136945
                                                                         0
## CSI045
                  0
                           0
                                    0 6.530186e-05 0.0000000000
                                                                         0
## CSI056
                  0
                           0
                                    0 1.959286e-05 0.0000000000
                  0
                           0
                                    0 5.750542e-05 0.0000000000
## CST066
                                                                         0
          Otu04201 Otu04202
                                 Otu04203 Otu04204
                                                        Otu04205 Otu04206
                           0 0.000000e+00
## CST002
                 0
                                                  0 0.000000e+00
                                                                         0
## CSI013
                  0
                           0 0.000000e+00
                                                  0 0.000000e+00
                                                                         0
## CSI023
                  Ω
                           0 0.000000e+00
                                                  0 0.000000e+00
                                                                         0
## CSI034
                           0 0.000000e+00
                                                  0 0.000000e+00
## CSI045
                  Ω
                           0 9.795279e-05
                                                  0 6.530186e-05
                                                                         0
## CSI056
                  0
                           0 0.000000e+00
                                                  0 0.000000e+00
                                                                         0
                  Ω
## CSI066
                           0 0.000000e+00
                                                  0 0.000000e+00
                                                                         0
          Otu04207
                        Otu04208 Otu04209
                                               Otu04210
                                                            Otu04211
## CSI002
                  0 0.00000e+00
                                        0 2.724387e-05 1.362194e-05
## CSI013
                  0 0.00000e+00
                                        0 0.000000e+00 1.278323e-04
## CSI023
                  0 0.000000e+00
                                        0 0.000000e+00 2.041025e-05
## CSI034
                  0 0.00000e+00
                                        0 1.136945e-04 0.000000e+00
## CSI045
                  0 1.306037e-04
                                        0 0.000000e+00 0.000000e+00
   CSI056
                  0 1.959286e-05
                                        0 0.000000e+00 0.000000e+00
   CSI066
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
                                         Otu04214
                            Otu04213
##
              Otu04212
                                                       Otu04215 Otu04216
## CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
  CSI013 3.195807e-05 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 7.579634e-05 3.789817e-05 0.000000e+00 1.894908e-05
                                                                        0
   CSIO45 0.000000e+00 0.000000e+00 3.265093e-05 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
          Otu04217 Otu04218 Otu04219 Otu04220 Otu04221 Otu04222 Otu04223
## CSI002
                 Ω
                           0
                                    0
                                              0
                                                       \cap
                                                                 \cap
                                                                          0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI013
                  0
## CSI023
                  0
                           0
                                    0
                                              0
                                                       0
                                                                          0
## CSI034
                  0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
## CSI045
                  0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
                  0
                           0
                                              0
                                                       0
## CSI056
                                    0
   CSI066
                  0
                           0
                                    0
                                              0
                                                       0
                                                                 0
          Otu04224
                        Otu04225 Otu04226 Otu04227 Otu04228 Otu04229 Otu04230
## CSI002
                  0 0.000000e+00
                                        0
                                                  0
                                                            0
                                                                     0
                                                                               0
                                        0
                                                  0
                                                            0
                                                                               0
## CSI013
                  0 0.00000e+00
                                                                     0
## CSI023
                  0.000000e+00
                                        0
                                                  0
                                                            0
                                                                     0
                                                                               0
## CSI034
                 0 0.000000e+00
                                        0
                                                  0
                                                            0
                                                                     0
                                                                               0
```

```
## CSI045
                  0 9.795279e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CST056
                  0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                                0
##
                                         0
                  0 5.750542e-05
##
   CSI066
                                         0
                                                   0
                                                             0
                                                                                0
##
               Otu04231 Otu04232 Otu04233
                                                                       Otu04236
                                                Otu04234 Otu04235
                                                                 0 0.000000e+00
##
   CSI002 2.724387e-05
                                0
                                         0 4.086581e-05
   CSI013 0.000000e+00
                                0
##
                                         0 0.00000e+00
                                                                 0 3.195807e-05
   CSI023 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI034 1.894908e-05
                                0
                                         0 9.474542e-05
                                                                 0 0.00000e+00
   CSI045 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.000000e+00
   CSI056 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0 0.00000e+00
   CSI066 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
          0tu04237
                        Otu04238
                                      Otu04239 Otu04240
                                                              Otu04241 Otu04242
##
   CSI002
                  0 1.362194e-05 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
                                                       0 0.00000e+00
##
   CSI013
                  0 0.000000e+00 6.391614e-05
                                                                               0
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
##
   CSI034
                  0 0.000000e+00 3.221344e-04
                                                       0 0.00000e+00
                                                                               0
##
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
##
   CST066
                  0 3.833694e-05 0.000000e+00
                                                       0 9.584236e-05
                                                                               0
##
               0tu04243
                            Otu04244 Otu04245
                                                    0tu04246
                                                                  Otu04247
##
   CSI002 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 3.195807e-05
                                              0 3.195807e-05 0.000000e+00
   CSI023 0.000000e+00 0.000000e+00
                                             0 6.123074e-05 0.000000e+00
   CSI034 7.579634e-05 0.000000e+00
                                              0 0.000000e+00 1.894908e-05
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 3.918572e-05
                                              0 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00
                                             0 0.000000e+00 1.916847e-05
##
                        Otu04249 Otu04250 Otu04251 Otu04252 Otu04253 Otu04254
##
          Otu04248
   CSI002
                                                            0
                                                                                0
##
                  0 1.362194e-05
                                         0
                                                   0
                                                                      0
   CSI013
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
   CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
   CSI034
                  0 9.474542e-05
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
   CSI045
                   0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                   0
                                                             0
                                                                                0
##
   CSI056
                  0 0.000000e+00
                                         0
                                                                      0
                    0.000000e+00
                                         0
                                                             0
                                                                      0
                                                                                0
##
   CSI066
                  0
                                                   0
                   Otu04256 Otu04257 Otu04258
##
          0tu04255
                                                     Otu04259 Otu04260
                                                                        Ot:1104261
##
  CSI002
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
  CSI013
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                O
##
   CSI023
                  0
                           0
                                                                                0
                                     0
                                               0.0.000000e+00
                                                                      0
                  0
                           0
                                                                      0
                                                                                O
##
  CST034
                                     0
                                               0 1.894908e-05
                           0
                                                                                0
   CSI045
                  0
                                     0
                                               0 0.00000e+00
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
##
   CST056
                  0
##
   CST066
                  0
                           0
                                               0 0.00000e+00
                                                                      0
                                                                                0
                                      Otu04264 Otu04265 Otu04266 Otu04267
##
               Otu04262 Otu04263
   CSI002 1.362194e-05
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI013 1.278323e-04
                                                       0
                                                                 0
                                                                           0
                                0 0.00000e+00
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
                                                                           0
   CSI034 0.000000e+00
                                0 1.894908e-05
                                                       0
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
##
                                 0.000000e+00
                                                                 0
                                                                           0
##
   CSI066 9.584236e-05
                                0
                                                       0
##
               Otu04268 Otu04269
                                      0tu04270
                                                    Otu04271 Otu04272
## CSI002 0.000000e+00
                                0 0.000000e+00 0.0000000000
                                                                     0
## CSI013 0.000000e+00
                                0 0.000000e+00 0.0000000000
                                                                     0
```

```
## CSI023 0.000000e+00
                                0 0.000000e+00 0.0000000000
                                                                      0
   CSI034 0.000000e+00
                                0 0.000000e+00 0.0000000000
                                                                      0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.0000000000
                                                                      0
   CSI056 5.877858e-05
                                0 9.796430e-05 0.0000000000
                                                                      0
##
   CSI066 0.000000e+00
                                0 3.833694e-05 0.0000000000
                                                                      0
##
                                           Otu04275 Otu04276 Otu04277
               0tu04273
                             Otu04274
                                                                       Ot:1104278
   CSI002 0.000000e+00 4.086581e-05 0.000000e+00
                                                            0
                                                                      0
                                                                               0
   CSI013 3.195807e-05 3.195807e-05 0.000000e+00
                                                            0
                                                                      0
                                                                               0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                            Λ
                                                                      0
                                                                               0
                                                            Λ
                                                                      0
   CSI034 7.579634e-05 7.579634e-05 0.000000e+00
                                                                               0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                               0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                               0
   CSI066 0.000000e+00 0.000000e+00 1.916847e-05
                                                            0
                                                                      0
                                                                               0
          Otu04279 Otu04280 Otu04281 Otu04282 Otu04283 Otu04284
##
                                                                         Otu04285
##
  CSI002
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
                  0
##
   CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
                            0
                                                         0
##
   CSI023
                  0
                                     0
                                               0
                                                                  0 0.00000e+00
   CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
  CSI045
                  0
                            0
                                               0
                                                         0
##
                                     0
                                                                  0.000000e+00
##
   CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 3.918572e-05
##
   CST066
                  Λ
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
                        Otu04287 Otu04288
                                                Otu04289 Otu04290 Otu04291
##
          Ot:1104286
## CSI002
                                                                 0
                  0.000000e+00
                                         0.000000e+00
                                                                           0
                                                                 0
##
   CSI013
                    0.000000e+00
                                         0 3.195807e-05
                                                                           0
                                                                 0
                                                                           0
##
  CSI023
                  0 0.000000e+00
                                         0 0.00000e+00
   CSI034
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
   CSI045
                                                                 0
                                                                           0
##
                    0.000000e+00
                                         0 0.00000e+00
                                                                 0
##
   CSI056
                    1.959286e-05
                                         0 0.00000e+00
                                                                           0
                                                                 0
   CSI066
                  0 5.750542e-05
                                         0 0.000000e+00
                                                                           0
##
##
          0tu04292
                        0tu04293
                                      Otu04294 Otu04295 Otu04296
                                                                   Otu04297
##
   CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
   CSI013
                    0.000000e+00 3.195807e-05
                                                       0
                                                                 0
                                                                           0
   CSI023
                    0.000000e+00 0.000000e+00
                                                        0
                                                                 0
                                                                           0
                    3.789817e-05 0.000000e+00
                                                                 0
                                                                           0
##
   CSI034
                                                       0
   CSI045
                    0.000000e+00 0.000000e+00
                                                        0
                                                                 0
                                                                           0
##
                    1.371500e-04 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
   CST056
##
   CSI066
                    0.000000e+00 0.000000e+00
                                                        0
                                                                 0
                                                                           0
##
          0tu04298
                        Otu04299 Otu04300 Otu04301 Otu04302
                                                                   Otu04303
## CSI002
                  0 0.000000e+00
                                                   0
                                                             0 5.448775e-05
                                         0
                  0 0.000000e+00
  CSI013
                                                   0
##
                                         0
                                                             0.000000e+00
                                         0
                                                   0
   CSI023
                    0.000000e+00
                                                               0.000000e+00
  CSI034
                    3.789817e-05
                                         0
                                                   0
##
                  0
                                                               1.894908e-05
##
   CSI045
                    0.000000e+00
                                         0
                                                   0
                                                             Λ
                                                               0.00000e+00
                                                   0
##
   CSI056
                    0.000000e+00
                                         0
                                                             0 0.00000e+00
                                                   0
##
   CSI066
                    0.000000e+00
                                         0
                                                             0 1.916847e-05
                                      Otu04306 Otu04307 Otu04308
                                                                        Otu04309
          Otu04304
##
                        Otu04305
##
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 1.362194e-05
   CSI013
##
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
##
   CSI034
                  0 5.684725e-05 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
                                                       0
##
   CSI045
                                                                 0 0.00000e+00
##
   CSI056
                  0 0.000000e+00 1.959286e-05
                                                        0
                                                                 0 1.959286e-05
                  0 0.000000e+00 0.000000e+00
##
  CSI066
                                                        0
                                                                 0 0.00000e+00
##
               Otu04310 Otu04311
                                      Otu04312
                                                    Otu04313 Otu04314 Otu04315
```

```
## CSI002 0.000000e+00
                                0 0.000000e+00 1.362194e-05
                                                                                0
  CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI023 2.041025e-05
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
                                0 0.000000e+00 2.463381e-04
   CSI034 0.000000e+00
                                                                      0
                                                                                0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
##
   CSI066 0.000000e+00
                                0 1.916847e-05 0.000000e+00
                                                                      0
                                                                                0
                                            Otu04319 Otu04320 Otu04321 Otu04322
##
          Otu04316 Otu04317 Otu04318
## CSI002
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
                            0
                                                             0
                                                                       0
                                                                                 0
##
  CSI013
                  0
                                     0 0.000000e+00
  CSI023
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
                  0
                            0
                                                             0
                                                                       0
## CSI034
                                       3.789817e-05
##
   CSI045
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                            0
                                                             0
                                                                       0
                                                                                 0
##
   CSI056
                  0
                                     0 0.00000e+00
  CSI066
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
##
          Otu04323 Otu04324
                                  0tu04325
                                                Otu04326 Otu04327 Otu04328
## CSI002
                                                                 0
                  0
                            0 0.000000e+00 2.724387e-05
                                                                           0
   CSI013
                  0
                              0.000000e+00 3.195807e-05
                                                                 0
                                                                           0
##
  CSI023
                  0
                              0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
##
  CSI034
                  0
                              0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
  CSI045
                  0
                              6.530186e-05 0.000000e+00
                                                                 0
                                                                           0
   CSI056
                              0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
                            0 3.833694e-05 0.000000e+00
                                                                 0
##
  CST066
                  0
                                                                           0
                              Otu04331 Otu04332 Otu04333
##
          Otu04329
                    Otu04330
                                                               Otu04334
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
  CSI013
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
  CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
                            0
                                               0
##
   CSI034
                  0
                                     0
                                                         0 1.894908e-05
                            0
   CSI045
                  0
                                     0
                                               0
                                                         0 0.000000e+00
##
##
  CSI056
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
   CSI066
                  0
                            0
                                               0
                                                         0 0.00000e+00
##
               Otu04335 Otu04336
                                      Otu04337 Otu04338
                                                              Otu04339
   CSI002 0.000000e+00
                                0 0.000000000
                                                        0 2.724387e-05
   CSI013 0.000000e+00
                                0 0.000000000
                                                        0 3.195807e-05
   CSI023 0.000000e+00
                                0 0.000000000
                                                        0 0.00000e+00
   CSI034 0.000000e+00
                                0 0.000000000
                                                        0 1.326436e-04
   CSI045 0.000000e+00
                                0 0.000000000
                                                        0 0.00000e+00
   CSI056 0.000000e+00
                                0 0.000000000
                                                        0 0.00000e+00
##
   CSI066 0.000000e+00
                                0 0.000000000
                                                        0 0.000000e+00
##
##
               Otu04340 Otu04341 Otu04342 Otu04343 Otu04344 Otu04345 Otu04346
  CSI002 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
  CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
   CSI034 0.000000e+00
                                                                       0
                                          0
                                                             0
                                                                                 0
   CSI045 0.000000e+00
                                0
                                                   0
                                                                       0
   CSI056 3.918572e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                   0
                                                                                 0
##
          Otu04347
                        Otu04348 Otu04349
                                                Otu04350
                                                              Otu04351 Otu04352
## CSI002
                  0 0.000000e+00
                                          0 0.000000e+00 0.0000000000
                                                                                0
##
   CSI013
                  0 0.000000e+00
                                          0 0.000000e+00 0.0000000000
                                                                                0
                                          0 0.000000e+00 0.0000000000
                                                                                0
##
   CSI023
                  0 0.000000e+00
## CSI034
                  0 1.894908e-05
                                          0 0.000000e+00 0.0001515927
                                                                                0
## CSI045
                  0 0.000000e+00
                                          0 3.265093e-05 0.0000000000
                                                                               0
## CSI056
                  0 0.00000e+00
                                          0 0.000000e+00 0.0000000000
                                                                                0
```

```
## CSI066
                  0 0.000000e+00
                                          0 3.833694e-05 0.0000000000
##
                        Otu04354 Otu04355 Otu04356 Otu04357 Otu04358 Otu04359
          0tu04353
## CSI002
                  0 1.362194e-05
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
  CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
  CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                                 0
##
  CSI034
                  0 3.789817e-05
                                                                       0
                                          0
                                                    0
                                                             0
  CSI045
                  0 0.000000e+00
                                                                                 0
                  0 0.00000e+00
## CSI056
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CSI066
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
          Otu04360
                        Otu04361 Otu04362 Otu04363
                                                      Otu04364
                                                               Otu04365
  CSI002
                  0 1.907071e-04
                                          0
                                                    0
                                                             0
                                                                       0
  CSI013
                                          0
                                                    0
                                                             0
                                                                       0
##
                  0 9.587421e-05
##
  CSI023
                  0 2.041025e-05
                                          0
                                                    0
                                                             0
                                                                       0
                  0 3.789817e-05
##
   CSI034
                                          0
                                                    0
                                                             0
                                                                       0
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
##
   CSI056
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                          0
                                                    0
                                                             0
                                                                       0
##
   CSI066
                  0 0.000000e+00
##
               Otu04366
                             Otu04367 Otu04368 Otu04369 Otu04370 Otu04371
  CSI002 0.000000e+00 1.362194e-05
##
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI034 7.579634e-05 1.705418e-04
                                              0
                                                                  0
                                                        0
                                                                            0
  CSI045 0.000000e+00 0.000000e+00
                                                                  0
                                              0
                                                        0
                                                                            0
   CSI056 1.371500e-04 0.000000e+00
                                                                  0
                                              0
                                                        0
                                                                  0
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        Ω
                                                                            0
          Otu04372 Otu04373 Otu04374 Otu04375 Otu04376 Otu04377
                                                                         Otu04378
## CSI002
                                     0
                                               0
                                                         0
                                                                   0 0.000000e+00
                  0
                            0
                                                         0
##
  CSI013
                  0
                            0
                                     0
                                               0
                                                                   0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.000000e+00
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.000000e+00
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
   CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 3.918572e-05
##
   CSI066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
          Otu04379 Otu04380 Otu04381 Otu04382 Otu04383
                                                               Otu04384
  CSI002
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
                                                         0 0.000000e+00
  CSI013
                  0
                            0
                                     0
                                               0
##
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0 0.00000e+00
## CSI034
                  0
                            0
                                                         0 0.000000e+00
                                     0
                                               0
                  0
                            0
                                               0
   CSI045
                                                         0 0.00000e+00
                            0
                                     0
                                               0
##
  CSI056
                  \cap
                                                         0 1.959286e-05
                                                         0 0.000000e+00
   CSI066
                                               0
##
                                                     Otu04388
               0t_{11}04385
                             Otu04386 Otu04387
                                                                   0t_{11}04389
   CSI002 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
                                              0 5.684725e-05 0.000000e+00
   CSI034 7.579634e-05 0.000000e+00
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00
                                              0 0.000000e+00 0.000000e+00
##
   CSI066 0.000000e+00 0.000000e+00
                                              0 1.916847e-05 0.000000e+00
##
           Otu04390
                        Otu04391 Otu04392
                                                Otu04393
                                                               Otu04394 Otu04395
## CSI002
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
## CSI013
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
## CSI023
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
## CSI034
                  0 1.894908e-05
                                          0 0.000000e+00 0.000000e+00
                                                                                0
```

```
## CSI045
                  0 0.00000e+00
                                         0 3.265093e-05 0.000000e+00
  CST056
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
                  0 0.000000e+00
                                         0 0.000000e+00 0.000000e+00
##
   CSI066
                                                                               0
##
               Otu04396 Otu04397 Otu04398 Otu04399 Otu04400 Otu04401
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                   0
                                                            Λ
                                                                      0
##
  CSI013 6.391614e-05
                                0
                                         0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
  CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                0
                                         0
                                                   0
                                                             0
   CSI056 0.000000e+00
                                                                      Λ
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
##
               Otu04402 Otu04403
                                      Otu04404 Otu04405 Otu04406
                                                                       Otu04407
##
   CSI002 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
   CSI013 0.000000e+00
                                0 2.556646e-04
                                                       0
                                                                 0 3.195807e-05
   CSI023 0.000000e+00
                                                                 0 0.000000e+00
                                0 0.00000e+00
                                                       0
   CSI034 1.894908e-05
                                0 7.579634e-05
                                                       0
                                                                 0 7.579634e-05
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CST066 1.916847e-05
                                0.0.000000e+00
                                                       0
                                                                 0.000000e+00
##
          Otu04408
                        Otu04409 Otu04410
                                                Otu04411 Otu04412 Otu04413
##
  CSI002
                  0 1.362194e-05
                                         0 0.00000e+00
                                                                 0
                                                                           0
## CSI013
                  0 6.391614e-05
                                         0 1.917484e-04
                                                                 0
                                                                           0
## CSI023
                                                                 0
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                           0
                                                                 0
  CSI034
                  0 1.894908e-05
                                         0 3.789817e-05
                                                                           0
                                                                 0
##
  CST045
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                           0
   CSI056
                  0 0.000000e+00
                                         0 1.959286e-05
                                                                 0
                                                                           0
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
##
   CSI066
##
          Otu04414 Otu04415
                                  Otu04416
                                                Otu04417 Otu04418 Otu04419
                           0 1.362194e-05 2.724387e-05
                                                                 0
##
  CSI002
                  0
                                                                           0
  CSI013
                  0
                           0 0.000000e+00 3.195807e-05
                                                                 0
                                                                           0
##
  CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
   CSI034
                  0
                           0 0.000000e+00 7.579634e-05
                                                                 0
                                                                           0
##
   CSI045
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
   CSI056
                           0 0.000000e+00 0.000000e+00
                                                                 0
##
                  0
                                                                           0
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
   CSI066
          Otu04420 Otu04421 Otu04422 Otu04423 Otu04424
##
                                                               Ot1104425 Ot1104426
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
## CSI023
                  0
                           0
                                               0
                                                        0 0.000000e+00
                                                                                0
                                     0
                  0
                           0
                                     0
                                               0
                                                                                O
##
  CST034
                                                        0.000000e+00
                           0
                                     0
                                               0
   CSI045
                  0
                                                        0 0.00000e+00
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
##
   CST056
                  0
##
   CST066
                  0
                           0
                                               0
                                                        0 0.00000e+00
                                                                                0
##
               Otu04427 Otu04428
                                      Otu04429
                                                    Otu04430 Otu04431 Otu04432
   CSI002 0.000000e+00
                                0 4.086581e-05 0.000000e+00
                                                                     0
                                                                               0
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI034 0.000000e+00
                                0 3.789817e-04 1.894908e-05
                                                                     0
                                                                               0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
##
   CSI056 9.796430e-05
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
##
                                                                               0
##
          Otu04433 Otu04434
                                  Otu04435 Otu04436
                                                         Otu04437 Otu04438
## CSI002
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
## CSI013
                  0
                           0 6.391614e-05
                                                   0 0.000000e+00
                                                                           0
```

```
## CSI023
                  0
                           0 0.00000e+00
                                                   0 0.00000e+00
                                                                          0
                             7.579634e-05
  CST034
                  0
                                                   0.000000e+00
                                                                          0
##
##
   CSI045
                  0
                             0.00000e+00
                                                   0 0.00000e+00
                                                                          0
   CSI056
                  0
                             0.000000e+00
                                                   0 0.00000e+00
                                                                          0
##
##
   CST066
                  0
                             0.000000e+00
                                                   0 0.00000e+00
                                                                          0
               Otu04439 Otu04440 Otu04441
                                               Otu04442 Otu04443 Otu04444
##
   CSI002 0.000000e+00
                               0
                                         0 1.362194e-05
                                                                 0
                                                                          0
  CSI013 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                               0
                                                                 Λ
                                                                          0
   CSI034 0.000000e+00
                                         0 0.000000e+00
   CSI045 0.000000e+00
                               0
                                           6.530186e-05
                                                                 0
                                                                          0
                                           0.000000e+00
                                                                 0
   CSI056 2.351143e-04
                               0
                                                                          0
                                         0
##
   CSI066 0.000000e+00
                               0
                                           0.000000e+00
                                                                 0
                                                                          0
                                         0
               Otu04445 Otu04446 Otu04447
                                           Otu04448
##
                                                         Otu04449
                                                                       Otu04450
   CSI002 1.362194e-05
                               0
                                         0
                                                   0 0.0001089755 0.000000e+00
##
   CSI013 0.000000e+00
                               0
                                         0
                                                   0 0.000000000 0.000000e+00
   CSI023 0.000000e+00
                                         0
                                                   0 0.000000000 0.000000e+00
                               0
   CSI034 3.789817e-04
                               0
                                         0
                                                     0.0001705418 0.000000e+00
   CSI045 0.000000e+00
                               0
                                         0
                                                    0.000000000 0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                   0 0.0000000000 1.959286e-05
##
   CSI066 0.000000e+00
                               0
                                         0
                                                   0 0.000000000 0.000000e+00
          Otu04451 Otu04452 Otu04453 Otu04454 Otu04455
##
                                                              Ot1104456 Ot1104457
## CSI002
                  0
                           0
                                     0
                                               0
                                                                                Λ
                                                        0.000000e+00
   CSI013
                           0
                                               0
                                                                                0
                  0
                                     0
                                                        0 0.00000e+00
                                               0
                                                                                O
##
  CSI023
                  0
                           0
                                     0
                                                        0 0.00000e+00
   CSI034
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
                                                                                0
   CSI045
                  0
                           0
                                     0
                                               0
                                                        0 3.265093e-05
                                                                                0
##
                  0
                           0
                                               0
                                                                                0
##
   CSI056
                                     0
                                                          7.837144e-05
   CSI066
                                               0
                                                                                0
                  0
                           0
                                     Λ
                                                        0 0.00000e+00
##
##
          0tu04458
                        Otu04459
                                      Otu04460 Otu04461 Otu04462
                                                                       Otu04463
##
   CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI013
                   0.000000e+00 0.000000e+00
                                                       0
                                                                 0 3.195807e-05
##
   CSI023
                    0.000000e+00 0.000000e+00
                                                       0
                                                                 0 2.041025e-05
                                                       0
##
   CSI034
                    1.894908e-04 0.000000e+00
                                                                 0 0.00000e+00
   CSI045
                    0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI056
                   0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
##
##
   CSI066
                  0
                    0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
          Otu04464
                        Otu04465
                                      Dt1104466
                                                    Otu04467
                                                                  D±1104468
   CSI002
                    1.362194e-05 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI013
                   0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI023
                   0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034
                   0.000000e+00 1.894908e-05 0.000000e+00 0.000000e+00
##
                   0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI045
                   0.000000e+00 0.000000e+00 5.877858e-05 0.000000e+00
##
   CSI056
##
   CSI066
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                    Otu04470 Otu04471
          Otu04469
                                           0tu04472
                                                         Otu04473 Otu04474
##
##
   CSI002
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
   CSI013
                           0
                                                                          0
##
                  0
                                     0 0.000000e+00 3.195807e-05
   CSI023
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
                           0
##
   CSI034
                  0
                                       3.789817e-05 0.000000e+00
                                                                          0
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
   CSI045
                           0
                                                                          0
##
  CSI056
                  0
                                     0 0.000000e+00 0.000000e+00
##
  CSI066
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
          Otu04475 Otu04476
                                 Otu04477 Otu04478 Otu04479 Otu04480 Otu04481
```

```
## CSI002
                            0 1.362194e-05
                                                     0
                                                               0
                                                                         0
                                                                                   0
  CSI013
                  0
                            0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI023
                  0
                              2.041025e-05
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI034
                  0
                              0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
                            0
##
   CSI045
                  0
                              0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
                              0.000000e+00
                                                     0
                                                               0
                                                                                   0
##
   CSI056
                  0
                                                                         0
                                                               0
##
   CSI066
                            0 0.000000e+00
                                                                         0
                                                                                   0
                                                       Otu04486
                                                                           Otu04488
##
           Otu04482 Otu04483
                              Otu04484 Otu04485
                                                                Otu04487
## CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
                            0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
##
   CSI013
                  0
                                      0
   CSI023
                  0
                            0
                                      0
                                                0 2.041025e-05
                                                                         0
                                                                                   0
                                                                                   0
   CSI034
                  0
                            0
                                      0
                                                                         0
##
                                                0 0.00000e+00
##
   CSI045
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                         0
                                                                                   0
                            0
                                                                                   0
##
   CSI056
                   0
                                      0
                                                0 0.00000e+00
                                                                         0
##
   CSI066
                   0
                            0
                                      0
                                                0 0.000000e+00
                                                                                   0
                                                                         0
##
               Otu04489
                             Otu04490 Otu04491 Otu04492 Otu04493
                                                                          Otu04494
   CSI002 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0 0.000000e+00
##
   CSI013 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0 0.00000e+00
   CSI034 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0 0.00000e+00
   CSI045 3.265093e-05 0.000000e+00
                                               0
                                                         Λ
                                                                   0 0.000000e+00
   CSI056 7.837144e-05 3.918572e-05
                                               0
                                                                   0 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0 0.00000e+00
           Otu04495 Otu04496 Otu04497 Otu04498
##
                                                       Otu04499 Otu04500 Otu04501
                                                0 0.000000000
## CSI002
                  0
                            0
                                      0
                                                                         0
                                                                                   0
   CSI013
                  0
                            0
                                      0
                                                0 0.000000000
                                                                         0
                                                                                   0
  CSI023
                  0
                            0
                                      0
                                                0 0.000000000
                                                                         0
                                                                                   0
##
                            0
                                                                                   0
##
   CSI034
                  0
                                      0
                                                  0.0002842363
                                                                         0
                            0
                                                                                   0
   CSI045
                  0
                                      0
                                                0 0.000000000
                                                                         0
##
##
   CSI056
                   0
                            0
                                      0
                                                0 0.000000000
                                                                         0
                                                                                   0
##
   CSI066
                  0
                            0
                                                0 0.000000000
                                                                         0
                                                                                   0
##
           Otu04502 Otu04503
                                   Otu04504 Otu04505 Otu04506 Otu04507
                                                                          Otu04508
##
  CSI002
                  0
                            0 0.000000000
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI013
                            0 0.0000000000
                                                               0
                                                                         0
                                                                                   0
##
                  0
                                                     0
   CSI023
                  0
                              0.000000000
                                                     0
                                                               0
                                                                         0
                                                                                   0
                  0
                              0.0001705418
                                                     0
                                                               0
                                                                                   0
##
   CSI034
                                                                         0
##
   CSI045
                   0
                              0.000000000
                                                     0
                                                               0
                                                                                   0
##
  CSI056
                  0
                              0.000000000
                                                     0
                                                               Λ
                                                                         0
                                                                                   0
                   0
                              0.000000000
                                                               0
                                                                         0
                                                                                   0
##
   CSI066
##
           Otu04509
                    Otu04510
                              Otu04511 Otu04512
                                                       Otu04513 Otu04514
                                                                           0t.1104515
                                                0 0.000000e+00
## CSI002
                  0
                            0
                                      0
                                                                         0
                                                                                   0
## CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
                                                                                   0
   CSI023
                  0
                            0
                                      0
                                                0 2.041025e-05
                                                                         0
                            0
                                                                         Λ
                                                                                   0
##
   CSI034
                  0
                                      0
                                                0 0.000000e+00
                            0
                                                                                   0
   CSI045
                   0
                                      0
                                                0 0.00000e+00
                                                                         0
## CSI056
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                                   0
                                                                         0
##
   CSI066
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                                   0
##
           Otu04516
                    Otu04517
                              Otu04518
                                             Otu04519 Otu04520
                                                                     Otu04521
## CSI002
                  0
                            0
                                      0
                                        0.000000000
                                                               0 0.000000e+00
##
   CSI013
                  0
                            0
                                        0.000000000
                                                                 0.000000e+00
                  0
                            0
                                        0.000000000
                                                                 0.000000e+00
##
   CSI023
                                                               0
## CSI034
                  0
                            0
                                      0 0.000000000
                                                                0.000000e+00
## CSI045
                  0
                            0
                                      0.000000000
                                                               0 0.000000e+00
## CSI056
                  0
                            0
                                      0 0.0001175572
                                                               0 1.959286e-05
```

```
## CSI066
                 0
                           0
                                    0 0.000000000
                                                            0 3.833694e-05
                                           Otu04525 Otu04526 Otu04527 Otu04528
          Otu04522 Otu04523 Otu04524
## CSI002
                  0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
                                                                               0
## CSI013
                                                            0
                                                                     0
                                                                               0
                  0
                           0
                                    0 0.00000e+00
                                    0 0.000000e+00
## CSI023
                  0
                           0
                                                            0
                                                                     0
                                                                               0
                  0
                           0
                                    0 0.000000e+00
                                                            0
                                                                     0
                                                                               Λ
##
  CSI034
                  0
                           0
                                                            0
## CSI045
                                    0 6.530186e-05
## CSI056
                  0
                           0
                                    0 3.918572e-05
                                                            0
                                                                     0
                                                                               0
  CSI066
                  0
                           0
                                    0 0.00000e+00
                                                            0
                                                                     0
                                                                               Λ
##
          Otu04529 Otu04530
                                 Otu04531 Otu04532 Otu04533
                                                                  Otu04534
  CSI002
                  0
                           0 4.086581e-05
                                                  0
                                                            0 0.00000e+00
## CSI013
                  0
                           0 0.000000e+00
                                                  0
                                                            0 0.000000e+00
## CSI023
                  0
                           0 0.000000e+00
                                                  0
                                                            0 0.000000e+00
                                                  0
                                                            0 0.00000e+00
## CSI034
                  0
                           0 5.684725e-05
## CSI045
                  0
                           0 0.000000e+00
                                                  0
                                                            0 0.00000e+00
## CSI056
                  0
                           0 0.00000e+00
                                                  0
                                                            0 1.959286e-05
                  0
                           0 0.000000e+00
                                                  0
##
   CST066
                                                            0 1.916847e-05
          Otu04535 Otu04536 Otu04537
                                           0tu04538
                                                        0tu04539
                                                                      Otu04540
## CST002
                 0
                           0
                                    0 0.000000e+00 4.086581e-05 2.724387e-05
## CSI013
                  0
                           0
                                    0 0.000000e+00 3.195807e-05 0.000000e+00
##
  CSI023
                  0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI034
                  0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI045
                  0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI056
                           0
                                    0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI066
                  0
          Otu04541 Otu04542 Otu04543 Otu04544
                                                    Otu04545
                                                                  Otu04546
## CSI002
                  0
                           0
                                    0
                                              0 0.000000e+00 1.362194e-05
                           0
  CSI013
                  0
                                    0
                                              0 0.000000e+00 0.000000e+00
## CSI023
                  0
                           0
                                    0
                                              0 0.000000e+00 0.000000e+00
## CSI034
                  0
                           0
                                    0
                                              0 0.000000e+00 0.000000e+00
## CSI045
                  0
                           0
                                    0
                                              0 0.000000e+00 0.000000e+00
##
  CSI056
                  0
                           0
                                    0
                                              0 0.000000e+00 0.000000e+00
                           0
   CSI066
                  0
                                    0
                                              0 0.000000e+00 0.000000e+00
                        Otu04548 Otu04549 Otu04550 Otu04551
##
          0tu04547
                                                                  0tu04552
   CSI002
                  0 0.00000e+00
                                         0
                                                  0
                                                            0 0.00000e+00
  CSI013
                  0 0.000000e+00
                                         0
                                                  0
                                                            0.000000e+00
  CSI023
                  0 0.00000e+00
                                         0
                                                  0
                                                            0 0.00000e+00
  CSI034
                  0 0.000000e+00
                                         0
                                                  0
                                                            0 1.894908e-05
##
                  0 9.795279e-05
                                         0
                                                  0
                                                            0 0.00000e+00
   CSI045
                                         0
                                                  0
##
  CSI056
                  0 0.00000e+00
                                                            0.000000e+00
                                         0
   CSI066
                   0.000000e+00
                                                            0.000000e+00
                        Otu04554 Otu04555
                                               Otu04556 Otu04557 Otu04558
##
          Otu04553
   CSI002
                  0 5.448775e-05
                                         0 0.000000e+00
                                                                0
                                                                          0
                                                                0
                                                                          0
  CSI013
                  0 0.00000e+00
                                         0 0.000000e+00
  CSI023
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                0
                                                                          0
## CSI034
                                                                0
                                                                         0
                  0 1.894908e-05
                                         0 0.00000e+00
   CSI045
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                0
                                                                          0
                                                                0
                                                                          0
   CSI056
                  0 0.00000e+00
                                         0 7.837144e-05
   CST066
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                0
          Otu04559 Otu04560
                                 Otu04561 Otu04562
                                                        0tu04563
                                                                      Otu04564
## CSI002
                  0
                           0 0.000000e+00
                                                  0 4.086581e-05 1.362194e-05
                  0
## CSI013
                           0 0.00000e+00
                                                  0 3.195807e-05 3.195807e-05
                                                  0 0.000000e+00 0.000000e+00
## CSI023
                 0
                           0 0.000000e+00
## CSI034
                 0
                           0 0.000000e+00
                                                  0 1.894908e-05 9.474542e-05
```

```
## CSI045
                  0
                            0 3.265093e-05
                                                    0 0.000000e+00 0.000000e+00
## CSI056
                            0 7.837144e-05
                                                    0 0.000000e+00 1.959286e-05
                  0
                                                    0 0.000000e+00 0.000000e+00
##
  CSI066
                  0
                            0 0.00000e+00
##
                              Otu04567 Otu04568 Otu04569 Otu04570 Otu04571
          Otu04565 Otu04566
##
  CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
##
                            0
                                                         0
                                                                   0
                                                                             0
## CSI023
                  0
                                     0
                                               0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                               0
                                                         0
                                                                   Λ
   CSI056
                  0
                                     0
                                                                             0
   CSI066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
           Otu04572 Otu04573
                                        Otu04575
                                                 Otu04576
                                                           Otu04577
##
                              Otu04574
                                                                     Otu04578
##
   CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI013
                            0
                                               0
                                                         0
                                                                   0
##
                  0
                                     0
                                                                             0
## CSI023
                  0
                            0
                                                         0
                                                                   0
                                                                             0
                                      0
                                               0
   CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI045
                                      0
   CSI056
                            0
                                                         0
                                                                   0
                                                                             0
##
                                               0
                                                         0
##
   CST066
                  0
                            0
                                     0
                                                                   0
                                                                             0
##
          Otu04579 Otu04580
                                  Otu04581 Otu04582 Otu04583
                                                                    Otu04584
##
  CSI002
                  0
                            0 0.000000000
                                                    Ω
                                                             0 0.00000e+00
## CSI013
                  0
                            0 0.0000000000
                                                    0
                                                             0 0.000000e+00
## CSI023
                  0
                                                    0
                            0 0.000000000
                                                             0 0.00000e+00
                  0
                                                    0
  CSI034
                            0 0.000000000
                                                             0 3.789817e-05
                  0
                                                    0
##
  CST045
                            0 0.000000000
                                                             0 0.00000e+00
   CSI056
                  0
                            0 0.0001175572
                                                    0
                                                             0 0.00000e+00
##
   CSI066
                  0
                                                    0
                                                               0.000000e+00
                            0.000000000
                                                             0
                        Otu04586 Otu04587 Otu04588
##
          0tu04585
                                                      Otu04589
                                                                    Otu04590
##
                  0 0.000000e+00
                                          0
                                                    0
   CSI002
                                                             0 0.00000e+00
  CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                             0 0.000000e+00
##
   CSI023
                  0 0.00000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
##
   CSI034
                  0 0.000000e+00
                                          0
                                                    0
                                                             0 1.894908e-05
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
##
   CSI056
                  0 0.00000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
##
                  0 0.00000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
   CSI066
               Otu04591 Otu04592
                                                              Otu04595 Otu04596
##
                                      Otu04593 Otu04594
  CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0 6.810968e-05
                                                                                0
  CSI013 6.391614e-05
                                0 0.000000e+00
                                                        0 9.587421e-05
                                                                                0
   CSI023 0.000000e+00
                                0 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
  CSI034 1.894908e-05
                                0 0.00000e+00
                                                        0 3.789817e-05
                                                                                0
   CSI045 0.000000e+00
                                                        0 0.000000e+00
                                0 0.00000e+00
                                                                                0
   CSI056 0.000000e+00
                                0 5.877858e-05
                                                        0 0.000000e+00
                                                                                0
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
           Otu04597 Otu04598 Otu04599 Otu04600
##
                                                      Otu04601 Otu04602
## CSI002
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
## CSI013
                  0
                            0
                                     0
                                                                       0
                                               0 0.00000e+00
##
  CSI023
                  0
                            0
                                     0
                                               0 8.164098e-05
                                                                       0
                  0
                            0
   CSI034
                                     0
                                               0 5.684725e-05
                                                                       0
##
   CSI045
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
##
   CSI056
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                            0
                                     0
                                                                       0
##
                  0
                                               0 0.00000e+00
##
               Otu04603 Otu04604 Otu04605
                                                Otu04606 Otu04607 Otu04608
## CSI002 2.724387e-05
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
## CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
```

```
## CSI023 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
   CSI034 1.894908e-05
                                0
                                                                 0
                                                                           0
                                          0 0.00000e+00
   CSI045 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                 0
                                                                           0
                                                                 0
   CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                           0
##
   CSI066 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                 0
                                                                           0
          Otu04609 Otu04610 Otu04611 Otu04612 Otu04613 Otu04614
##
                                                                         Ot:1104615
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 1.362194e-05
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 6.391614e-05
##
  CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
                            0
                                                         0
##
  CSI034
                  0
                                     0
                                               0
                                                                  0 3.789817e-05
   CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
                  0
                            0
                                     0
                                               0
                                                         0
##
   CSI056
                                                                  0 0.000000e+00
##
   CSI066
                  0
                            0
                                               0
                                                         0
                                                                  0 0.000000e+00
##
          Otu04616
                        0tu04617
                                      Otu04618 Otu04619 Otu04620 Otu04621
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
##
   CSI013
                    1.597904e-04 0.000000e+00
                                                        0
                                                                 0
                                                                           0
                  0 0.000000e+00 6.123074e-05
                                                                 0
                                                                           0
##
   CSI023
                                                       0
   CSI034
                  0 1.894908e-05 3.789817e-05
                                                        0
                                                                 0
                                                                           0
                  0 0.000000e+00 3.265093e-05
   CSI045
                                                                 0
                                                                           0
##
                                                       0
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
   CST066
                  0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                 0
                                                                           0
##
               Otu04622 Otu04623 Otu04624
                                                Otu04625
                                                              Otu04626 Otu04627
  CSI002 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
##
                                                                               0
                                          0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
                                0
                                                                               0
   CSI023 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                               0
   CSI034 0.000000e+00
                                0
                                          0 0.000000e+00 7.579634e-05
                                                                               0
   CSI045 0.000000e+00
                                0
                                          0 0.000000e+00 0.000000e+00
                                                                               0
                                0
   CSI056 0.000000e+00
                                           1.959286e-05 0.000000e+00
                                                                               0
   CSI066 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                               0
##
##
          Otu04628 Otu04629
                                  Otu04630 Otu04631 Otu04632 Otu04633 Otu04634
## CSI002
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
   CSI013
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI023
                  0
                            0 8.164098e-05
                                                   0
                                                             0
                                                                       0
                                                                                 0
                  0
                                                   0
                                                             0
                                                                                 0
##
  CSI034
                             7.579634e-05
                                                                       0
   CSI045
                  0
                              0.000000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
                            0 0.000000e+00
                  0
                                                   0
                                                             0
                                                                       0
                                                                                 0
##
  CST056
##
   CSI066
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                                 0
##
          Otu04635 Otu04636
                                  Otu04637
                                                Otu04638 Otu04639
                                                                        Otu04640
## CSI002
                  0
                            0 0.000000e+00 1.362194e-05
                                                                 0 0.000000e+00
  CSI013
                  0
                            0 9.587421e-05 0.000000e+00
##
                                                                 0.000000e+00
                             0.000000e+00 2.041025e-05
  CSI023
                  0
                                                                 0 0.000000e+00
  CSI034
                  0
                             0.000000e+00 1.894908e-05
                                                                 0 0.00000e+00
##
                            0
##
   CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
##
   CSI056
                  Λ
                            0 7.837144e-05 0.000000e+00
                                                                 0 0.00000e+00
                            0 0.000000e+00 0.000000e+00
##
   CSI066
                  0
                                                                 0 0.00000e+00
##
                             Otu04642 Otu04643
                                                    Otu04644 Otu04645 Otu04646
               Otu04641
   CSI002 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                               0
                                                                      0
   CSI013 0.0000000000 0.000000e+00
                                              0 6.391614e-05
                                                                               0
   CSI023 0.0000000000 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                               0
   CSI034 0.0000000000 5.684725e-05
                                              0 0.00000e+00
                                                                      0
                                                                               0
   CSI045 0.0000000000 0.000000e+00
                                                                      0
                                                                               0
                                              0.0.000000e+00
   CSI056 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                               0
##
   CSI066 0.0000000000 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                               0
##
               0tu04647
                             Otu04648
                                          Otu04649
                                                         Otu04650
                                                                       Otu04651
```

```
## CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI013 6.391614e-05 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 8.164098e-05 0.000000e+00
   CSI034 1.894908e-05 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00 0.000000e+00 3.265093e-05 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00 1.959286e-05 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00 1.916847e-05 0.000000e+00 0.000000e+00 1.916847e-05
##
              Otu04652 Otu04653
                                      Otu04654 Otu04655
                                                             Ot1104656 Ot1104657
   CSI002 0.000000e+00
                               0 1.362194e-05
                                                       0 0.000000e+00
                                                                              O
   CSI013 0.000000e+00
                               0 0.000000e+00
                                                       0 0.00000e+00
                                                                              Λ
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
  CSI034 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
                                                                              0
   CSI045 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                              0
   CSI056 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000e+00
                                                                              0
   CSI066 3.833694e-05
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                              0
##
##
          Otu04658
                        Otu04659 Otu04660 Otu04661 Otu04662 Otu04663 Otu04664
## CSI002
                  0 0.00000e+00
                                         0
                                                  0
                                                            0
                                                                      0
                                                                               0
   CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
  CSI023
                                                                               0
##
                  0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
  CSI034
                  0 1.894908e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
  CST045
                  0 0.000000e+00
                                         0
                                                   0
                                                            Λ
                                                                      0
                                                                               O
                                         0
                                                   0
                                                            0
                                                                               0
   CST056
                  0 1.959286e-05
                                         0
                                                   0
                                                            0
##
  CSI066
                  0 0.000000e+00
                                                                      0
                                                                               0
##
              Otu04665 Otu04666 Otu04667 Otu04668
                                                    Otu04669
                                                              Otu04670 Otu04671
## CSI002 4.086581e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI034 2.842363e-04
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
   CSI045 0.000000e+00
   CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
              Otu04672 Otu04673 Otu04674 Otu04675 Otu04676
                                                              Otu04677
                                                                        0 \pm 1104678
   CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
  CSI013 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
                               0
                                         0
   CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
                               0
                                         0
                                                   0
                                                            0
                                                                               0
  CSI034 0.000000e+00
                                                                      0
   CSI045 3.265093e-05
                               0
                                         0
                                                   0
                                                            0
                                                                               0
  CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            Λ
                                                                      0
                                                                               O
##
  CSI066 7.667389e-05
                               0
                                                                               0
##
                                         0
                                                            0
                                                                      0
              Otu04679 Otu04680
##
                                      Otu04681
                                                    Otu04682 Otu04683 Otu04684
  CSI002 0.0000000000
                               0 2.724387e-05 1.362194e-05
                                                                     0
                                                                              0
## CSI013 0.0000000000
                               0 2.237065e-04 3.195807e-05
                                                                     0
                                                                              0
   CSI023 0.0000000000
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI034 0.0000000000
                               0 7.579634e-05 5.684725e-05
                                                                     0
                                                                              0
   CSI045 0.0000000000
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI056 0.0000000000
                               0 0.000000e+00 1.959286e-05
                                                                     0
                                                                              0
##
   CSI066 0.0000000000
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
##
              0tu04685
                            Otu04686
                                          Otu04687 Otu04688
                                                                 Otu04689
  CSI002 0.000000e+00 0.000000e+00 1.362194e-05
                                                           0 0.000000000
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.000000000
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0.0.0000000000
  CSI034 0.000000e+00 5.684725e-05 5.684725e-05
                                                           0 0.000000000
## CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0.0000000000
## CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0 0.000000000
```

```
## CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                      0 0.000000000
##
         Otu04690 Otu04691 Otu04692 Otu04693 Otu04694 Otu04695 Otu04696
## CSI002
                         0
                                 0
                                          0
                                                   0
                                                            0
                                                                    0
## CSI013
                                                            0
                                                                    0
                0
                         0
                                 0
                                          0
                                                   0
## CSI023
                0
                         0
                                 0
                                          0
                                                   0
                                                            0
                                                                    0
                0
                         0
## CSI034
                                 0
                                          0
                                                   0
                                                            0
                                                                    0
                         0
  CSI045
                0
                                  0
                                          0
                                                   0
                                                                    0
## CSI056
                0
                         0
                                 0
                                          0
                                                   0
                                                            0
                                                                    0
##
  CSI066
                0
                         0
                                  0
                                          0
                                                   0
                                                            0
                                                                    0
             Otu04697 Otu04698
                                               Otu04700
##
                                  Otu04699
                                                            0tu04701
  CSI002 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI013 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00
                             0 2.041025e-05 0.000000e+00 0.000000e+00
  CSI034 1.894908e-05
                             0 3.789817e-05 0.000000e+00 3.789817e-05
  CSI045 0.000000e+00
                             0 0.000000e+00 0.000000e+00 1.306037e-04
  CSI056 0.000000e+00
                             0 0.000000e+00 1.959286e-05 5.877858e-05
  CSI066 0.000000e+00
                             0 0.000000e+00 0.000000e+00 0.000000e+00
##
##
             Otu04702
                          Otu04703
                                      Otu04704
                                                   Otu04705 Otu04706
## CSI002 0.000000e+00 0.000000e+00 1.362194e-05 0.0000000000
                                                                  0
## CSI013 0.000000e+00 0.000000e+00 3.195807e-05 0.0002556646
                                                                  0
  0
  CSI034 0.000000e+00 0.000000e+00 1.894908e-05 0.0000000000
  0
  CSI066 1.916847e-05 1.916847e-05 0.000000e+00 0.0000000000
                                                                  0
             Otu04707 Otu04708 Otu04709
                                           Otu04710 Otu04711
                                                                Otu04712
## CSI002 0.000000e+00
                             0
                                     0 0.00000e+00
                                                           0 0.00000e+00
  CSI013 0.000000e+00
                             0
                                     0 0.00000e+00
                                                           0 0.00000e+00
  CSI023 0.000000e+00
                             0
                                     0 0.000000e+00
                                                           0 0.000000e+00
  CSI034 0.000000e+00
                             0
                                     0 0.00000e+00
                                                           0 0.000000e+00
  CSI045 3.265093e-05
                             0
                                     0 0.000000e+00
                                                          0 6.530186e-05
  CSI056 0.000000e+00
                             0
                                     0 0.000000e+00
                                                           0 0.000000e+00
  CSI066 0.000000e+00
                             0
                                     0 0.00000e+00
                                                           0 0.00000e+00
                      Otu04714 Otu04715 Otu04716 Otu04717
##
         Otu04713
                                                             Otu04718
## CSI002
                0 0.00000e+00
                                     0
                                              0
                                                       0 0.00000e+00
  CSI013
                                     0
                                              0
##
                0 3.195807e-05
                                                       0 6.391614e-05
## CSI023
                0 0.00000e+00
                                     0
                                              0
                                                       0 0.00000e+00
## CSI034
                0 0.000000e+00
                                     0
                                              0
                                                       0 0.000000e+00
                0 0.000000e+00
                                     0
                                              0
  CSI045
                                                       0.000000e+00
                                     Λ
                                              0
##
  CSI056
                0.000000e+00
                                                       0 1.175572e-04
                                     0
  CST066
                0 0.000000e+00
                                              0
                                                       0.000000e+00
             Otu04719 Otu04720
                                  Otu04721 Otu04722 Otu04723
##
                                                                0t_{11}04724
  CSI002 0.000000e+00
                             0 1.362194e-05
                                                  0
                                                           0 0.00000e+00
                                                  0
  CSI013 0.000000e+00
                             0 3.195807e-05
                                                           0 0.00000e+00
  CSI023 0.000000e+00
                             0 0.00000e+00
                                                  0
                                                           0 2.041025e-05
## CSI034 0.000000e+00
                                                  0
                             0 5.684725e-05
                                                           0 0.00000e+00
  CSI045 0.000000e+00
                             0 0.00000e+00
                                                  0
                                                           0 0.00000e+00
  CSI056 0.000000e+00
                             0 0.000000e+00
                                                  0
                                                           0 0.000000e+00
  CSI066 7.667389e-05
                             0 0.000000e+00
                                                  0
                                                           0 0.000000e+00
##
         Otu04725 Otu04726 Otu04727
                                       Otu04728 Otu04729 Otu04730
## CSI002
                         0
                                 0 0.000000e+00
                0
                                                       0
                                                               0
                         0
## CSI013
                0
                                 0 0.00000e+00
                                                       0
                                                               0
## CSI023
                0
                         0
                                 0 0.00000e+00
                                                       0
                                                               0
## CSI034
                0
                         0
                                 0 9.474542e-05
                                                       0
                                                               0
```

```
## CSI045
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
  CSI056
                                     0 0.000000e+00
                                                             0
##
                  0
                            0
                                                                       0
##
   CSI066
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
##
               Otu04731 Otu04732 Otu04733 Otu04734 Otu04735
                                                               Ot:1104736
##
   CSI002 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
  CSI034 3.789817e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                          0
   CSI056 0.000000e+00
                                0
                                                   0
                                                             0
                                                                       Λ
   CSI066 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
##
               Otu04737
                             Otu04738 Otu04739 Otu04740 Otu04741 Otu04742
##
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                           0
   CSI023 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
                                              0
                                                       0
   CSI034 1.894908e-05 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                       0
                                                                           0
   CSI056 0.000000e+00 1.959286e-05
                                              0
                                                        0
                                                                 0
                                                                           0
                                              0
                                                                 0
##
   CSI066 0.000000e+00 0.000000e+00
                                                                           0
##
               Otu04743 Otu04744 Otu04745 Otu04746
                                                          Otu04747 Otu04748
##
   CSI002 0.000000e+00
                                0
                                         Λ
                                                   0 0.00000e+00
                                                                           0
  CSI013 0.000000e+00
                                          0
                                                   0 0.000000e+00
                                0
                                                                           0
  CSI023 0.000000e+00
                                0
                                          0
                                                   0.000000e+00
                                                                           0
   CSI034 5.684725e-05
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI045 0.000000e+00
                                                                           0
                                0
                                          0
                                                   0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                   0 0.00000e+00
                                                                           0
   CSI066 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
##
          Otu04749 Otu04750 Otu04751 Otu04752 Otu04753
##
                                                               Otu04754 Otu04755
##
                  0
  CSI002
                            0
                                     0
                                               0
                                                         0 8.173162e-05
                                                                                0
  CSI013
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
##
  CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
##
   CSI034
                  0
                            0
                                     0
                                               0
                                                         0.0.000000e+00
                                                                                0
##
   CSI045
                  0
                            0
                                     0
                                               0
                                                         0 6.530186e-05
                                                                                0
                            0
##
   CSI056
                  0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
##
   CSI066
          Otu04756 Otu04757
                                                         Otu04760 Otu04761
                                  Otu04758 Otu04759
##
## CSI002
                  0
                            0 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
## CSI013
                  0
                            0 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
                  0
                            0 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
  CSI023
                  0
                                                                           0
##
  CSI034
                            0 0.00000e+00
                                                   0.000000e+00
   CSI045
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
                                                                           0
                                                   0 0.00000e+00
                                                                           0
##
   CST056
                  0
                            0 1.959286e-05
##
   CSI066
                  0
                            0 0.000000e+00
                                                   0 5.750542e-05
                                                                           0
                             Otu04763 Otu04764 Otu04765
##
               0tu04762
                                                              Otu04766 Otu04767
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI013 0.000000e+00 3.195807e-05
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI034 3.789817e-05 0.000000e+00
                                              0
                                                       0 3.789817e-05
                                                                               0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000000e+00
                                                                               0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                                               0
##
                                                       0 0.00000e+00
##
               Otu04768
                             Otu04769 Otu04770 Otu04771
                                                              Otu04772 Otu04773
## CSI002 0.000000e+00 0.000000e+00
                                              0
                                                       0 4.086581e-05
                                                                               0
## CSI013 0.000000e+00 0.000000e+00
                                              0
                                                       0 0.000000e+00
                                                                               0
```

```
## CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI034 0.000000e+00 3.789817e-05
                                              0
                                                        0 5.684725e-05
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI056 0.000000e+00 0.000000e+00
                                              O
                                                        0 0.00000e+00
                                                                                0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
           Otu04774 Otu04775
                                  Otu04776 Otu04777 Otu04778
##
                                                                    Otu04779
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                             0 0.00000e+00
## CSI013
                  0
                            0 0.00000e+00
                                                    0
                                                             0 6.391614e-05
##
  CSI023
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
                                                    0
##
  CSI034
                  0
                            0
                             0.000000e+00
                                                              0 1.894908e-05
   CSI045
                  0
                            0
                              0.000000e+00
                                                    0
                                                               0.000000e+00
                  0
                                                    0
##
   CSI056
                            0
                              0.000000e+00
                                                               0.000000e+00
##
   CSI066
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
##
          Otu04780 Otu04781 Otu04782 Otu04783 Otu04784 Otu04785 Otu04786
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                                         0
                                                                   0
                                                                             0
##
  CSI023
                  0
                                      0
                                               0
   CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI045
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
                                      0
##
   CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CST066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
          Otu04787
                    Otu04788
                              Otu04789 Otu04790
                                                      Otu04791 Otu04792
##
## CSI002
                  0
                            0
                                      0
                                               0.0000000000
                                                                       0
##
   CSI013
                  0
                            0
                                      0
                                               0 0.000000000
                                                                       0
## CSI023
                  0
                            0
                                      0
                                               0 0.000000000
                                                                       0
   CSI034
                  0
                            0
                                      0
                                               0 0.000000000
                                                                       0
   CSI045
                  0
                            0
                                      0
                                                                       0
##
                                               0 0.0000000000
                            0
                                                                       0
##
   CSI056
                  0
                                      0
                                               0 0.000000000
                                                                       0
   CSI066
                            0
                                               0 0.0002300217
##
                  0
##
               Otu04793
                             Otu04794
                                           Otu04795 Otu04796 Otu04797 Otu04798
##
   CSI002 0.0002588168 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                                0
   CSI013 0.0000000000 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                                0
   CSI023 0.0000000000 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                                0
   CSI034 0.0000000000 1.894908e-05 1.894908e-05
                                                                      0
                                                            0
                                                                                0
   CSI045 0.0000000000 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                                0
   CSI056 0.0000000000 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
                                                                                0
##
   CSI066 0.0000000000 1.916847e-05 0.000000e+00
                                                            0
                                                                      0
##
           Otu04799
                         Otu04800
                                      Otu04801 Otu04802 Otu04803 Otu04804
## CSI002
                  0 0.000000e+00 2.724387e-05
                                                        0
                                                                  0
                                                                            0
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                                        0
   CSI034
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
                  0 0.000000e+00 0.000000e+00
                                                                  0
##
   CSI045
                                                        0
                                                                            0
                                                        Λ
                                                                  0
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                                            0
                  0 0.000000e+00 0.000000e+00
##
   CSI066
               Otu04805 Otu04806 Otu04807 Otu04808 Otu04809
##
                                                                    Otu04810
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
                                0
   CSI013 0.000000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                               0.000000e+00
   CSI034 3.789817e-05
                                0
                                          0
                                                    0
                                                                1.705418e-04
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                               0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 3.918572e-05
##
  CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
##
               Otu04811
                             Otu04812
                                           0tu04813
                                                         Otu04814
                                                                       Otu04815
```

```
## CSI002 1.362194e-05 0.000000e+00 4.086581e-05 1.362194e-05 2.724387e-05
   CSI013 0.000000e+00 3.195807e-05 3.195807e-05 2.556646e-04 1.278323e-04
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI034 1.894908e-05 1.894908e-05 3.789817e-05 0.000000e+00 1.894908e-05
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                            Otu04817 Otu04818 Otu04819
##
              Ot:1104816
                                                             Otu04820 Otu04821
   CSI002 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                              O
                                             0
   CSI013 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                              0
   CSI023 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                              0
                                             0
   CSI034 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                              0
   CSI045 9.795279e-05 0.000000e+00
                                             0
                                                      0 0.000000e+00
                                                                              0
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                      0 0.00000e+00
                                                                              0
   CSI066 7.667389e-05 1.916847e-05
                                             0
                                                                              0
                                                      0.0.000000e+00
##
          0tu04822
                        Otu04823
                                      Otu04824
                                                   Otu04825 Otu04826
  CSI002
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                                    0
   CSI013
                  0 3.195807e-05 9.587421e-05 3.195807e-05
                                                                    0
  CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                                    0
   CSI034
                  0 1.136945e-04 3.789817e-05 0.000000e+00
                                                                    0
##
   CST045
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
                  0 0.000000e+00 0.000000e+00 1.371500e-04
                                                                    0
   CST056
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                    0
##
  CSI066
##
              Ot:1104827
                            Ot:1104828
                                          0tu04829
                                                        Otu04830 Otu04831
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00 9.587421e-05 0.000000e+00 0.000000e+00
                                                                        0
   CSIO23 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI034 1.894908e-05 7.579634e-05 0.000000e+00 0.000000e+00
                                                                        0
   CSIO45 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
##
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                        0
##
          Otu04832 Otu04833 Otu04834 Otu04835
                                                    Otu04836 Otu04837 Otu04838
## CSI002
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI013
                                                                               0
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
  CSI023
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
                           0
                                                                     0
                                                                               0
## CST034
                  0
                                     0
                                              0 0.00000e+00
##
  CSI045
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
## CSI056
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                     0
                                                                               0
                  0
                           0
                                                0.00000e+00
                                                                     0
                                                                               0
##
   CSI066
                                     0
                                              0
                   Otu04840
##
          Otu04839
                             Otu04841 Otu04842
                                                    Otu04843
                                                                  Ot.1104844
## CSI002
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI013
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI023
                  0
                           0
                                     0
                                              0 0.000000e+00 0.000000e+00
                           0
                  0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI034
                           0
## CSI045
                  0
                                     0
                                              0 0.000000e+00 0.000000e+00
## CSI056
                  0
                           0
                                     0
                                              0 3.918572e-05 0.000000e+00
##
  CSI066
                  0
                           0
                                     0
                                              0 0.000000e+00 9.584236e-05
##
          Otu04845
                   Otu04846
                             Otu04847 Otu04848 Otu04849
                                                              Otu04850
## CSI002
                  0
                           0
                                     0
                                              0
                                                        0 1.362194e-05
## CSI013
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                  0
                           0
                                     0
                                              0
## CSI023
                                                        0.0.000000e+00
## CSI034
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
## CSI045
                  0
                           0
                                     0
                                              0
                                                        0.0.000000e+00
## CSI056
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
```

```
## CSI066
                           0
                                                        0 0.00000e+00
##
              Otu04851 Otu04852
                                     Ot1104853 Ot1104854
                                                             Ot:1104855
##
  CSI002 1.362194e-05
                               0 0.00000e+00
                                                      0 0.00000e+00
   CSI013 0.000000e+00
                               0 6.391614e-05
                                                      0 0.00000e+00
   CSI023 0.000000e+00
                               0 0.000000e+00
                                                      0 0.00000e+00
##
   CSI034 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                      0 0.00000e+00
  CSI056 0.000000e+00
                               0 3.918572e-05
                                                      0 1.959286e-05
##
   CSI066 0.000000e+00
                               0 0.00000e+00
                                                      0 0.000000e+00
                                               Otu04859 Otu04860 Otu04861
##
              Otu04856 Otu04857 Otu04858
   CSI002 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
                               0
                                                                0
                                                                          0
##
   CSI013 0.000000e+00
                                         0 0.00000e+00
   CSI023 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0
                                                                          0
                                                                0
   CSI034 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                          0
   CSI045 0.000000e+00
                               0
                                                                0
                                                                          0
                                         0 0.00000e+00
   CSI056 0.000000e+00
                               0
                                           1.959286e-05
                                                                0
                                                                          0
                               0
                                                                0
##
   CSI066 0.000000e+00
                                         0 0.00000e+00
                                                                          0
                                                        Otu04866 Otu04867
##
              Otu04862 Otu04863 Otu04864 Otu04865
##
  CSI002 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI013 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI023 0.000000e+00
                               0
                                         0
                                                  0 0.00000e+00
                                                                          0
   CSI034 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
  CSI045 0.000000e+00
                                         0
                               0
                                                  0 0.00000e+00
                                                                          0
   CSI056 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
                                                  0 0.000000e+00
##
   CSI066 1.916847e-05
                               0
                                         0
                                                                          0
##
              Otu04868 Otu04869
                                      Otu04870 Otu04871 Otu04872 Otu04873
##
   CSI002 0.0000000000
                               0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                0
   CSI013 0.0005432872
                               0 0.00000e+00
                                                      0
                                                                          0
                                                                0
   CSI023 0.0000000000
                                                      0
                                                                          0
                               0 0.00000e+00
   CSI034 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0
                                                                          0
   CSI045 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0
                                                                          0
   CSI056 0.0000000000
                               0 3.918572e-05
                                                      0
                                                                0
                                                                          0
##
   CSI066 0.0000000000
                               0 0.00000e+00
                                                      0
                                                                0
                                                                          0
##
          Otu04874
                        Otu04875
                                      Otu04876 Otu04877
                                                             Otu04878 Otu04879
   CSI002
                  0 1.362194e-05 0.000000e+00
                                                      0 0.00000e+00
##
                                                                              0
                  0 3.195807e-05 0.000000e+00
   CSI013
##
                                                      0 0.000000e+00
                                                                              0
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                      0 0.00000e+00
                                                                              0
  CSI034
                  0 1.894908e-05 0.000000e+00
                                                      0 0.00000e+00
                                                                              0
##
                  0 0.000000e+00 0.000000e+00
##
   CST045
                                                      0 0.000000e+00
                                                                              0
                  0 0.000000e+00 0.000000e+00
##
   CSI056
                                                      0 0.000000e+00
                                                                              0
                  0 0.000000e+00 2.300217e-04
##
   CST066
                                                      0.0.000000e+00
##
              Otu04880 Otu04881 Otu04882
                                               Otu04883 Otu04884
                                                                      0t_{11}04885
##
   CSI002 0.000000e+00
                               0
                                         0 1.362194e-05
                                                                0 0.00000e+00
                               0
   CSI013 0.000000e+00
                                         0 0.000000e+00
                                                                0 0.00000e+00
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
                               0
   CSI034 1.894908e-05
                                         0 1.894908e-05
                                                                0 0.00000e+00
   CSI045 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
                               0
   CSI056 0.000000e+00
                                         0 0.00000e+00
                                                                0 0.00000e+00
##
   CST066 0.000000e+00
                               0
                                         0.0.000000e+00
                                                                0.0.000000e+00
##
          Otu04886 Otu04887 Otu04888
                                           Otu04889
                                                        Otu04890 Otu04891
  CSI002
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
                  0
                           0
                           0
## CSI013
                  0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
## CSI023
                  0
                           0
                                    0 0.000000e+00 0.000000e+00
                                                                          0
## CSI034
                  0
                           0
                                    0 0.000000e+00 3.600326e-04
                                                                          0
```

```
## CSI045
                           0
                                    0 0.000000e+00 0.000000e+00
## CST056
                           0
                                    0 2.351143e-04 0.000000e+00
                 0
## CSI066
                 0
                           0
                                    0 9.584236e-05 0.000000e+00
##
          Otu04892
                        Otu04893 Otu04894 Otu04895
                                                        Otu04896 Otu04897
## CST002
                 0 0.000000e+00
                                        0
                                                  0 1.362194e-05
                                                                         0
## CSI013
                 0 0.000000e+00
                                        0
                                                  0 3.195807e-05
                                                                         0
                                        0
## CSI023
                 0 0.00000e+00
                                                  0 0.000000e+00
## CSI034
                 0 0.00000e+00
                                        0
                                                  0 0.000000e+00
                                                                         0
  CSI045
                 0 0.000000e+00
                                        0
                                                  0 0.000000e+00
                 0 1.959286e-05
                                        0
## CSI056
                                                  0 0.00000e+00
   CSI066
                 0 0.000000e+00
                                        0
                                                  0 0.00000e+00
          Otu04898 Otu04899 Otu04900 Otu04901 Otu04902 Otu04903 Otu04904
##
## CSI002
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
## CSI013
                 0
                                                  0
                                                           0
                                                                     0
                                                                               0
                           0 0.000000e+00
## CSI023
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                               0
                                                                     0
## CSI034
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                               0
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                               0
## CSI045
## CSI056
                           0 1.959286e-05
                                                           0
                                                  0
                                                           0
##
  CST066
                 0
                           0 0.000000e+00
          Otu04905 Otu04906 Otu04907 Otu04908 Otu04909 Otu04910 Otu04911
## CSI002
                 Λ
                           Λ
                                    Ω
                                              Λ
                                                       Λ
                                                                 Ω
                                                                          0
## CSI013
                           0
                                    0
## CSI023
                           0
                 0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
                 0
                           0
                                    0
                                                       0
## CSI034
                                              0
                           0
                                    0
                                              0
                                                       0
                                                                 0
## CSI045
                 0
## CSI056
                 0
                           0
                                    0
                                                       0
## CSI066
                 0
                           0
                                    0
                                              0
                                                       0
                                                                 0
                                                                          0
          Otu04912 Otu04913 Otu04914 Otu04915 Otu04916
                                                            Otu04917 Otu04918
## CSI002
                 0
                           0
                                    0
                                              0
                                                       0 2.724387e-05
## CSI013
                 0
                           0
                                    0
                                              0
                                                       0 0.00000e+00
## CSI023
                 0
                           0
                                    0
                                              0
                                                       0 0.000000e+00
                                                                               0
## CST034
                 0
                           0
                                    0
                                              0
                                                       0 0.000000e+00
                                                                               0
                           0
                                    0
## CSI045
                 0
                                              0
                                                       0 0.00000e+00
## CSI056
                 0
                           0
                                    0
                                              0
                                                       0 0.00000e+00
                                                                               0
                 0
                           0
                                    0
                                              0
                                                       0 1.341793e-04
                                                                               0
##
##
          Otu04919 Otu04920
                                 Otu04921 Otu04922 Otu04923 Otu04924 Otu04925
## CSI002
                 0
                           0 4.086581e-05
                                                  0
                                                           0
                                                                     0
## CSI013
                 Λ
                           0 0.000000e+00
                                                  0
                                                           Λ
                                                                     0
                                                                               0
## CSI023
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                               0
                 Λ
                                                  Ω
                                                           Λ
                                                                     0
                                                                               0
## CSI034
                           0 3.789817e-05
                                                  0
                                                           0
## CSI045
                           0 0.000000e+00
## CSI056
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     0
                                                                              0
   CST066
                 0
                           0 0.000000e+00
                                                  0
                                                           0
                                                                     Ω
          Otu04926
                      Otu04927 Otu04928
                                               Otu04929 Otu04930 Otu04931
##
## CSI002
                 0 0.000000e+00
                                        0 5.448775e-05
                                                                0
## CSI013
                 0 0.000000e+00
                                        0 0.000000e+00
                                                                0
                                                                         0
## CSI023
                 0 2.041025e-05
                                        0 0.00000e+00
                                                                0
                                                                         0
                                                                0
## CSI034
                 0 9.474542e-05
                                        0 0.000000e+00
## CSI045
                 0 0.000000e+00
                                        0 0.00000e+00
                                                                0
                                                                         0
## CSI056
                 0 0.000000e+00
                                        0 0.00000e+00
                                                                0
                                                                         0
                                        0 0.000000e+00
                 0 0.000000e+00
                                                                0
##
                     Otu04933 Otu04934 Otu04935 Otu04936 Otu04937 Otu04938
          Otu04932
                 0 0.000000e+00
## CSI002
                                        0
                                                  0
                                                           0
                                                                     0
                                                                              0
## CSI013
                 0 0.000000e+00
                                        0
                                                  0
                                                           0
                                                                     0
                                                                               0
```

```
## CSI023
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CST034
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
##
                                                                         0
   CSI045
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI056
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
##
   CST066
                   0
                    0.000000e+00
                                           0
                                                     0
                                                                         0
                                                                                   0
                    Otu04940 Otu04941 Otu04942 Otu04943
##
           Otu04939
                                                                 Otu04944 Otu04945
  CSI002
                   0
                             0
                                      0
                                                 0
                                                           0 0.000000000
                                                                                   0
## CSI013
                   0
                             0
                                      0
                                                 0
                                                           0 0.000000000
                                                                                   0
##
   CSI023
                   0
                             0
                                      0
                                                 0
                                                           0 0.000000000
                                                                                   0
                             0
                                                 0
                                                                                   0
##
  CSI034
                   0
                                       0
                                                           0 0.000000000
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000000
                                                                                   0
                   0
                             0
                                      0
                                                 0
                                                                                   0
##
   CSI056
                                                           0 0.0002155215
##
   CSI066
                   0
                             0
                                      0
                                                 0
                                                           0.000000000
                                                                                   0
           Otu04946
                    Otu04947
##
                               Otu04948 Otu04949
                                                       Otu04950
                                                                      Otu04951
## CSI002
                   0
                             0
                                      0
                                                 0 0.000000e+00 0.000000e+00
##
   CSI013
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
                                                 0 2.041025e-05 0.000000e+00
##
   CSI023
                   0
                             0
                                      0
   CSI034
                   0
                             0
                                       0
                                                 0 7.579634e-05 0.000000e+00
   CSI045
                   0
                             0
                                      0
                                                 0 0.000000e+00 3.265093e-05
##
##
   CSI056
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
   CST066
                   0
                             0
                                      0
                                                 0 0.000000e+00 0.000000e+00
           Otu04952
                    Otu04953
                               Otu04954 Otu04955
                                                   Otu04956 Otu04957 Otu04958
##
## CSI002
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                      0
   CSI013
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                   0
                                      0
                                                                     0
## CSI023
                   0
                             0
                                      0
                                                 0
                                                           0
                                                                               0
   CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI045
                   0
                             0
                                      0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                   0
                             0
                                                 0
                                                           0
                                                                     0
##
   CSI056
                                       0
                                                                               0
                             0
                                                 0
                                                           0
                                                                     0
   CSI066
                   0
                                       0
                                                                               0
##
##
           Otu04959
                    Otu04960
                                   Otu04961 Otu04962 Otu04963 Otu04964
## CSI002
                   0
                             0 1.362194e-05
                                                     0
                                                               0
                                                                         0
##
   CSI013
                   0
                             0 6.391614e-05
                                                     0
                                                               0
                                                                         0
   CSI023
                   0
                             0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                   0
                             0 5.684725e-05
                                                     0
                                                               0
                                                                         0
##
   CSI034
   CSI045
                   0
                               0.000000e+00
                                                     0
                                                               0
                                                                         0
##
                             0 1.959286e-05
                                                     0
                                                               0
                                                                         0
##
   CST056
                   0
##
   CSI066
                   0
                             0 3.833694e-05
                                                     0
                                                               0
##
               0tu04965
                              Otu04966 Otu04967 Otu04968 Otu04969 Otu04970
   CSI002 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                    0
                                                                              0
   CSI013 0.000000e+00 3.195807e-05
                                               0
                                                         0
                                                                    0
                                                                              0
   CSI023 0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                                               0
                                                         0
   CSI034 0.000000e+00 3.789817e-05
                                               0
                                                         0
                                                                    0
                                                                              0
   CSI045 0.000000e+00 0.000000e+00
                                                                    0
                                               0
                                                         0
                                                                              0
                                                0
                                                         Λ
                                                                    Λ
                                                                              0
   CSI056 3.918572e-05 0.000000e+00
                                               0
                                                         0
   CSI066 1.916847e-05 0.000000e+00
                                                                    0
##
           Otu04971
                         Otu04972 Otu04973 Otu04974 Otu04975
                                                                   Otu04976
##
   CSI002
                   0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000000
   CSI013
                   0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000000
   CSI023
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                 0.00000000
##
   CSI034
                   0 0.00000e+00
                                           0
                                                     0
                                                                 0.00000000
                                           0
                                                     0
                                                                 0.00000000
##
   CSI045
                   0 3.265093e-05
                                                               0
##
   CSI056
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.00013715
##
   CSI066
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.00000000
##
               Otu04977
                              Otu04978 Otu04979 Otu04980 Otu04981
                                                                          0tu04982
```

```
## CSI002 0.000000000 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
   CSI013 0.0000000000 0.000000e+00
                                             0
                                                       0
                                                                 0 3.195807e-05
   CSI023 0.0000000000 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
   CSI034 0.0000000000 9.474542e-05
                                             0
                                                                 0 1.894908e-05
                                                       0
   CSI045 0.0000000000 0.000000e+00
                                             0
                                                       0
                                                                 0 0.000000e+00
   CSI056 0.0000000000 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
   CSI066 0.0000000000 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
##
              Otu04983 Otu04984
                                      Otu04985 Otu04986 Otu04987 Otu04988
   CSI002 1.362194e-05
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                                                                 0
                                                                          0
   CSI013 0.000000e+00
                               0 0.00000e+00
                                                       0
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                                                                 0
                                                                          0
   CSI034 9.474542e-05
                               0 0.00000e+00
                                                       0
   CSI045 0.000000e+00
                               0 0.000000e+00
                                                       0
                                                                 0
                                                                          0
                                                                 0
   CSI056 0.000000e+00
                               0 1.175572e-04
                                                       0
                                                                          0
   CSI066 0.000000e+00
                               0 0.000000e+00
                                                       0
                                                                 0
                                                                          0
##
##
          Otu04989 Otu04990 Otu04991
                                           Otu04992 Otu04993 Otu04994 Otu04995
## CSI002
                           0
                  0
                                     0 1.362194e-05
                                                            0
                                                                      0
                                                                                0
  CSI013
                  0
                           0
                                     0 3.195807e-05
                                                            0
                                                                      0
                                                                                0
##
  CSI023
                           0
                                     0 0.00000e+00
                                                                               0
##
                  0
                                                            0
                                                                      0
##
   CSI034
                  0
                           0
                                     0 3.789817e-05
                                                            0
                                                                      0
                                                                                0
##
  CSI045
                  0
                           0
                                     0 0.000000e+00
                                                            Λ
                                                                      0
                                                                               0
   CSI056
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
                           0
                                                                                O
##
  CSI066
                  0
                                     0 0.000000e+00
                                                            0
                                                                      0
##
              Otu04996 Otu04997
                                      Otu04998 Otu04999
                                                             Otu05000 Otu05001
## CSI002 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000000
                                                                              0
   CSI013 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000000
                                                                              0
   CSI023 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000000
                                                                              0
   CSI034 5.684725e-05
                               0 1.894908e-05
                                                       0 0.000000000
                                                                              0
                                                                              0
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000000
   CSI056 0.000000e+00
                               0 0.00000e+00
                                                       0 0.0002351143
                                                                              0
##
   CSI066 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000000
                                                                              0
##
              Otu05002 Otu05003 Otu05004 Otu05005 Otu05006 Otu05007
   CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI013 0.000000e+00
                               0
                                                   0
                                                            0
                                                                      0
                                         0
   CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
  CSI056 1.959286e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
##
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
##
##
              Otu05008 Otu05009
                                      Otu05010 Otu05011 Otu05012 Otu05013
  CSI002 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                 0
  CSI013 0.0000000000
                               0 6.391614e-05
                                                       0
                                                                 0
                                                                          0
   CSI023 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                                                                 0
   CSI034 0.0000000000
                                                       0
                                                                          0
                               0 1.136945e-04
   CSI045 0.0000000000
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
   CSI056 0.0000000000
                                                       0
                                                                 0
                                                                          0
                               0 0.00000e+00
##
   CSI066 0.0001341793
                               0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
##
          Otu05014
                        Otu05015
                                      Otu05016 Otu05017
                                                             Otu05018
## CSI002
                  0 1.362194e-05 0.000000e+00
                                                       0 4.086581e-05
   CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
##
                  0 2.041025e-05 0.000000e+00
##
  CSI023
                                                       0 6.123074e-05
## CSI034
                  0 0.000000e+00 0.000000e+00
                                                       0 0.00000e+00
## CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0 0.000000e+00
## CSI056
                  0 0.000000e+00 1.175572e-04
                                                       0 0.00000e+00
```

```
## CSI066
                  0 0.000000e+00 1.916847e-05
                                                       0 0.00000e+00
##
              Otu05019 Otu05020
                                      Ot:105021
                                                    Ot:105022
                                                                  Ot:1105023
## CSI002 0.000000e+00
                               0 0.000000e+00 0.000000e+00 8.173162e-05
  CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                               0 0.000000e+00 0.000000e+00 3.789817e-05
  CSI034 0.000000e+00
   CSI045 0.000000e+00
                               0 3.265093e-05 0.000000e+00 0.000000e+00
                               0 5.877858e-05 7.837144e-05 0.000000e+00
## CSI056 1.959286e-05
  CSI066 0.000000e+00
                               0 0.000000e+00 0.000000e+00 0.000000e+00
                                                    Otu05027 Otu05028 Otu05029
                            Otu05025 Otu05026
##
              Otu05024
## CSI002 4.086581e-05 2.724387e-05
                                             0 0.00000e+00
                                                                     0
                                             0 0.000000e+00
## CSI013 0.000000e+00 6.391614e-05
                                                                     0
                                                                              0
  CSI023 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                               0
## CSI034 9.474542e-05 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                               0
   CSI045 0.000000e+00 0.000000e+00
                                                                     0
                                             0.0.000000e+00
                                                                               0
   CSI056 0.000000e+00 3.918572e-05
                                             0 1.959286e-05
                                                                     0
   CSI066 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                               0
##
          Otu05030 Otu05031 Otu05032 Otu05033 Otu05034 Otu05035
                                                                        Otu05036
## CSI002
                                                                  0 0.000000e+00
                  0
                           0
                                     0
                                              0
                                                        0
## CSI013
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.00000e+00
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.000000e+00
## CSI034
                  0
                           0
                                              0
                                                        0
                                                                  0 0.000000e+00
## CSI045
                           0
                                              0
                                                        0
                  0
                                     0
                                                                  0.000000e+00
## CSI056
                           0
                                              0
                                                        0
                  0
                                     0
                                                                  0 0.00000e+00
                                              0
                                                        0
## CSI066
                  0
                           0
                                     0
                                                                  0 0.00000e+00
          Otu05037 Otu05038 Otu05039
                                           Otu05040 Otu05041 Otu05042 Otu05043
## CSI002
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                               0
                                                            0
                                                                                0
  CSI013
                  0
                           0
                                     0 6.391614e-05
                                                                      0
                                                            0
                                                                                0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                                      0
  CSI034
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                               0
## CSI045
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                               0
##
  CSI056
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
##
   CSI066
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                                0
                                                    Otu05047 Otu05048 Otu05049
##
              Otu05044 Otu05045
                                      0t.1105046
  CSI002 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
  CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
  CSI034 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
  CSI056 3.918572e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
                               0 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
##
          Otu05050 Otu05051 Otu05052 Otu05053 Otu05054 Otu05055
                                                                        Otu05056
## CSI002
                  \cap
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.00000e+00
                           0
                                              0
                                                        0
## CSI013
                  0
                                     0
                                                                  0 0.00000e+00
                           0
## CSI023
                  0
                                     0
                                              0
                                                        0
                                                                  0 0.00000e+00
## CSI034
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.000000e+00
##
  CSI045
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.00000e+00
                  0
                           0
                                              0
                                                        0
##
  CSI056
                                     0
                                                                  0 0.00000e+00
##
   CST066
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0 0.000000e+00
##
              Otu05057 Otu05058 Otu05059 Otu05060 Otu05061 Otu05062
## CSI002 2.724387e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                               0
                                         0
                                                   0
                                                            0
## CSI013 3.195807e-05
                                                                      0
## CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI034 1.894908e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
```

```
## CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI056 0.000000e+00
                                                             0
                                                                      0
                                0
                                         0
                                                   0
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
               Otu05063 Otu05064 Otu05065
                                                Otu05066 Otu05067 Otu05068
                                         0 0.000000e+00
##
   CSI002 0.000000e+00
                                0
                                                                 0
                                                                           0
                                                                 0
                                                                           0
##
  CSI013 0.000000e+00
                                0
                                         0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
  CSI034 0.000000e+00
                                0
                                         0 1.894908e-05
                                                                 0
                                                                           0
   CSI045 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
                                                                 Λ
   CSI056 0.000000e+00
                                Λ
                                         0 0.00000e+00
                                                                           0
   CSI066 7.667389e-05
                                         0 0.00000e+00
                                                                 0
                                                                           0
##
          Otu05069 Otu05070
                                  Otu05071 Otu05072 Otu05073 Otu05074
##
   CSI002
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                             0
##
  CSI013
                  0
                            0 0.00000e+00
                                                   0
                                                                      0
  CSI023
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
##
   CSI034
                  0
                              0.000000e+00
                                                   0
                                                             0
                                                                      0
##
                                                             0
##
   CSI045
                  0
                              0.000000e+00
                                                   0
                                                                      0
   CSI056
                              1.959286e-05
                                                   0
                                                             0
                                                                      0
##
                                                             0
##
   CST066
                  0
                            0 0.000000e+00
                                                   0
                                                                      0
##
               Otu05075 Otu05076 Otu05077 Otu05078
                                                         Otu05079 Otu05080
##
   CSI002 1.362194e-05
                                0
                                         Λ
                                                   0 1.362194e-05
                                                                           0
   CSI013 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00
                                                                           0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI034 1.136945e-04
                                0
                                         0
                                                     0.000000e+00
                                                                           0
   CSI045 0.000000e+00
                                         0
                                                     1.632546e-04
                                                                           0
                                0
   CSI056 0.000000e+00
                                0
                                         0
                                                     0.000000e+00
                                                                           0
   CSI066 0.000000e+00
                                0
                                                   0 0.00000e+00
                                                                           0
##
                                         0
##
               Otu05081 Otu05082
                                      Otu05083 Otu05084
                                                              Otu05085 Otu05086
##
   CSI002 2.724387e-05
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI013 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI034 5.684725e-05
                                0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
                                                       0 5.877858e-05
##
   CSI056 0.000000e+00
                                0 7.837144e-05
                                                                               0
   CSI066 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
##
                                                                               0
                            Otu05088 Otu05089 Otu05090
##
               Otu05087
                                                              Otu05091 Otu05092
   CSI002 0.0000000000 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI013 0.0000000000 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI023 0.0000000000 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI034 0.0000000000 0.000000e+00
                                              0
                                                       0 0.000000e+00
                                                                               0
   CSI045 0.0000000000 0.000000e+00
                                              0
                                                       0 0.00000e+00
                                                                               0
   CSI056 0.0000000000 0.000000e+00
                                              0
                                                       0 0.000000e+00
                                                                               0
##
   CSI066 0.0000000000 0.000000e+00
                                              0
                                                       0 3.833694e-05
                                                                               0
                            Otu05094 Otu05095
                                                Otu05096 Otu05097 Otu05098
##
               Otu05093
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                                           0
                                                       0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI034 0.000000e+00 1.894908e-05
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI066 1.916847e-05 0.000000e+00
                                              0
                                                       0
                                                                 0
##
                                                                           0
##
          Otu05099 Otu05100 Otu05101 Otu05102 Otu05103 Otu05104 Otu05105
## CSI002
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
```

```
## CSI023
                  0
                            0
                                      0
                                                                   0
                                                                             0
  CST034
                  0
                            0
                                                0
                                                          0
                                                                   0
                                                                             0
##
                                      0
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
  CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
##
   CST066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
          Otu05106 Otu05107
                              Otu05108 Otu05109 Otu05110 Otu05111
                                                                          Otu05112
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.0001089755
## CSI013
                            0
                  0
                                      0
                                                0
                                                          0
                                                                   0 0.000000000
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.0000000000
                            0
                                                0
                                                          0
##
   CSI034
                  0
                                      0
                                                                   0 0.000000000
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000000
                                                0
                                                          0
                  0
                            0
                                      0
##
   CSI056
                                                                   0 0.000000000
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                     0.0000000000
               Otu05113 Otu05114 Otu05115 Otu05116
##
                                                          Otu05117
                                                                         Otu05118
   CSI002 1.362194e-05
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
   CSI013 0.000000e+00
                                0
                                          0
                                                      0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                      0.000000e+00 0.000000e+00
   CSI034 0.000000e+00
                                0
                                          0
                                                      0.000000e+00 0.000000e+00
                                                      0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
   CSI056 0.000000e+00
                                0
                                          0
                                                      5.877858e-05 0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
               Otu05119
                             Otu05120 Otu05121 Otu05122 Otu05123
  CSI002 1.362194e-05 2.724387e-05
                                              0
                                                        0
##
                                                                  0.000000e+00
   CSI013 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0 0.00000e+00
                                               0
   CSI023 0.000000e+00 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI034 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0 5.684725e-05
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0 0.00000e+00
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0 1.959286e-05
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0 0.00000e+00
##
##
          0tu05125
                         Otu05126 Otu05127
                                                 Otu05128 Otu05129
                                                                    Otu05130
##
   CSI002
                  0 4.086581e-05
                                          0 0.000000000
                                                                  0
                                                                            0
##
   CSI013
                  0 0.000000e+00
                                          0 0.000000000
                                                                  0
                                                                            0
                                                                  0
   CSI023
                  0 0.00000e+00
                                          0 0.000000000
                                                                            0
                                                                  0
                                                                            0
   CSI034
                  0 0.00000e+00
                                            0.0001894908
##
   CSI045
                    0.000000e+00
                                            0.000000000
                                                                  0
                                                                            0
                    0.000000e+00
                                            0.000000000
                                                                  0
                                                                            0
##
   CST056
                                          0
##
   CSI066
                    0.000000e+00
                                          0 0.000000000
                                                                  0
                                                                            0
##
          Otu05131
                    0tu05132
                                  Otu05133
                                            Otu05134
                                                          Otu05135 Otu05136
   CSI002
                  0
                            0 0.000000e+00
                                                    0 8.173162e-05
                                                                            0
##
   CSI013
                  0
                                                                            0
##
                            0 0.000000e+00
                                                    0 6.391614e-05
   CSI023
                  0
                                                                            0
                            0
                              0.000000e+00
                                                      0.000000e+00
  CSI034
                  0
                                                    0 0.00000e+00
                                                                            0
##
                            0
                              1.894908e-05
   CSI045
                  0
                            0
                              0.00000e+00
                                                    \cap
                                                      0.000000e+00
                                                                            0
                  0
                                                                            Λ
##
   CSI056
                              0.000000e+00
                                                    0 0.00000e+00
                            0
##
   CSI066
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                            0
                              Otu05139 Otu05140 Otu05141 Otu05142
          Otu05137
                    Otu05138
                                                                          Otu05143
##
##
   CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 2.724387e-05
   CSI013
                            0
                                                0
                                                          0
##
                  0
                                      0
                                                                   0 0.00000e+00
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
##
                  0
                            0
                                      0
                                                0
                                                          0
##
   CSI045
                                                                   0.0.000000e+00
                            0
##
   CSI056
                  0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
  CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
          Otu05144 Otu05145 Otu05146
                                            0tu05147
                                                          0tu05148
                                                                         0tu05149
```

```
## CSI002
                            0
                                      0 0.000000e+00 0.000000e+00 1.362194e-05
## CSI013
                  0
                            0
                                      0 0.000000e+00 3.195807e-05 0.000000e+00
## CSI023
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
                            0
                                      0 5.684725e-05 1.894908e-05 1.894908e-05
## CSI034
                  0
##
  CSI045
                  0
                            0
                                        0.000000e+00 0.000000e+00 0.000000e+00
  CSI056
                  0
                            0
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                      0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI066
                            0
##
          Otu05150
                         Otu05151 Otu05152
                                                 Otu05153 Otu05154 Otu05155
## CSI002
                  0 0.000000e+00
                                          0 1.362194e-05
                                                                  0
                                                                            0
                                                                  Λ
                                                                            0
##
  CSI013
                  0 6.391614e-05
                                          0 0.00000e+00
  CSI023
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
## CSI034
                                                                  0
                                                                            0
                  0 0.00000e+00
                                          0 0.00000e+00
##
   CSI045
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                  0
                                                                            0
                  0 0.000000e+00
                                                                  0
##
  CSI056
                                          0 0.00000e+00
                                                                            0
  CSI066
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                  0
                                                                            0
##
##
           Otu05156 Otu05157
                                  Otu05158 Otu05159 Otu05160 Otu05161 Otu05162
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI013
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
                                                                        0
## CSI034
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI045
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  O
## CSI056
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
## CST066
                  0
          Otu05163 Otu05164
                              Otu05165 Otu05166 Otu05167 Otu05168
##
                                                                          Otu05169
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 3.195807e-05
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
                            0
                                                0
## CSI034
                  0
                                      0
                                                          0
                                                                   0 7.579634e-05
## CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
##
          Otu05170 Otu05171
                                  0tu05172
                                                 Otu05173 Otu05174 Otu05175
## CSI002
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI013
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI023
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI034
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI056
                  0
                            0 1.959286e-05 5.877858e-05
                                                                  0
                                                                            0
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
##
  CST066
                                                      Otu05180 Otu05181 Otu05182
##
           Otu05176 Otu05177
                              Otu05178 Otu05179
                            0
## CSI002
                  0
                                      0
                                                0 0.00000e+00
                                                                        0
## CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
## CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                            0
                                                                        Λ
                                                                                  0
## CSI034
                  0
                                      0
                                                0 0.00000e+00
                            0
## CSI045
                  0
                                      0
                                                0 3.265093e-05
                                                                                  0
## CSI056
                  0
                            0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
                                      0
##
  CSI066
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
           Otu05183 Otu05184 Otu05185 Otu05186 Otu05187 Otu05188 Otu05189
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
```

```
## CSI066
                  0
                           0
                                     0
                                                        0
                                                                  0
##
          Otu05190 Otu05191
                                  Otu05192 Otu05193 Otu05194 Otu05195 Otu05196
## CSI002
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                                0
## CSI013
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
## CSI023
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                  0
                                                   0
                                                             Λ
                                                                                0
## CSI034
                            0 1.894908e-05
                                                                      0
                                                             0
## CSI045
                            0 0.000000e+00
                                                   0
## CSI056
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI066
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
               Otu05197 Otu05198 Otu05199 Otu05200 Otu05201 Otu05202
##
  CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI056 1.959286e-05
                                0
                                         0
                                                   0
                                                             0
                                         0
                                                   0
                                                             0
   CSI066 0.000000e+00
                                0
                                                                      0
##
              Otu05203 Otu05204 Otu05205 Otu05206 Otu05207
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI023 0.000000e+00
                                0
                                         0
                                                   Ω
                                                             Λ
                                                                      0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI045 2.612074e-04
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI056 1.959286e-05
                                0
                                         0
                                                   0
                                                             0
## CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             \cap
              Otu05209 Otu05210 Otu05211 Otu05212
                                                         Otu05213
                                                                       Otu05214
## CSI002 5.448775e-05
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                         0
  CSI013 0.000000e+00
                                0
                                                   0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                0
                                         0
                                                   0 1.175572e-04 0.000000e+00
   CSI066 0.000000e+00
                                0
                                         0
                                                   0 1.916847e-05 0.000000e+00
##
                            Otu05216 Otu05217 Otu05218 Otu05219 Otu05220
              Otu05215
## CSI002 6.810968e-05 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
  CSI013 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
## CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
  CSI034 3.789817e-05 1.894908e-05
                                              0
                                                                 Ω
                                                                           0
                                                       0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                                       0
   CSI056 0.000000e+00 0.000000e+00
                                              Λ
                                                       Λ
                                                                 0
                                                                           0
   CSI066 0.000000e+00 0.000000e+00
##
          Otu05221 Otu05222
                                  Otu05223 Otu05224 Otu05225 Otu05226 Otu05227
## CSI002
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                             0
                                                                                0
## CSI013
                  0
                           0 0.00000e+00
                                                   0
                                                                      0
## CSI023
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034
                  0
                                                   0
                                                             0
                           0 0.00000e+00
                                                                      0
                                                                                0
## CSI045
                  0
                           0 0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                   0
## CSI056
                  0
                            0 5.877858e-05
                                                             0
                                                                                0
   CST066
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
          Otu05228 Otu05229 Otu05230
                                          Otu05231 Otu05232 Otu05233 Otu05234
                                     0 0.000000e+00
## CSI002
                           0
                                                             0
                                                                                0
                  0
                                                                      0
                           0
## CSI013
                  0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
## CSI034
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
```

```
## CSI045
                            0
                                      0 0.00000e+00
                                                              0
## CSI056
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                 0
                  0
                                      0 0.000000e+00
##
  CSI066
                  0
                            0
                                                              0
                                                                        0
                                                                                  0
          Otu05235 Otu05236 Otu05237 Otu05238 Otu05239 Otu05240 Otu05241
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
                                                         0
                                                                   0
## CSI023
                  0
                                      0
                                                0
                                                                             0
## CSI034
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
                                                0
                                                         0
                                                                   Λ
##
  CSI056
                  0
                                                                             0
   CSI066
                  0
                            0
                                      0
                                                0
                                                                             0
          Otu05242 Otu05243 Otu05244
                                            Otu05245 Otu05246 Otu05247 Otu05248
##
##
  CSI002
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
## CSI013
                            0
                                                              0
                                                                        0
                                                                                  0
                  0
                                      0 0.00000e+00
## CSI023
                            0
                                      0 0.000000e+00
                                                              0
                                                                                 0
                  0
                                                                        0
##
  CSI034
                  0
                            0
                                      0 1.894908e-05
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
                                                                        0
                                                                                  0
##
  CSI045
                                      0 0.00000e+00
   CSI056
                            0
                                      0 0.00000e+00
                                                              0
                                                                                  0
                            0
                                                              0
##
   CST066
                  0
                                      0 0.000000e+00
                                                                        0
                                                                                 0
##
               Otu05249 Otu05250 Otu05251 Otu05252 Otu05253
                                                                    Otu05254
##
  CSI002 0.000000e+00
                                0
                                          Λ
                                                    Ω
                                                              0 0.00000e+00
## CSI013 0.000000e+00
                                          0
                                                    0
                                                              0 0.000000e+00
## CSI023 0.000000e+00
                                                    0
                                0
                                          0
                                                              0 0.00000e+00
  CSI034 7.579634e-05
                                          0
                                                    0
                                0
                                                              0 0.00000e+00
                                          0
                                                    0
  CSI045 0.000000e+00
                                0
                                                              0 0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
               Otu05255 Otu05256 Otu05257 Otu05258 Otu05259 Otu05260 Otu05261
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI002 4.086581e-05
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI045 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
   CSI056 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                 0
                                0
                                                                        0
##
   CSI066 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               0tu05262
                             Otu05263 Otu05264 Otu05265 Otu05266 Otu05267
## CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
  CSI013 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                                  0
                                                                            0
                                                        0
  CSI034 0.000000e+00 3.789817e-05
                                              Λ
                                                                  0
                                                                            0
                                                        Ω
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                                  0
  CSI056 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0
                         Otu05269 Otu05270 Otu05271 Otu05272 Otu05273 Otu05274
##
          0tu05268
## CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI013
                  0 0.000000e+00
                                          0
                                                              0
                                                                        0
                                                                                  0
                                                    0
  CSI023
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                                                  0
  CSI034
                  0 0.00000e+00
                                                              0
  CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
##
   CSI056
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
                  0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                 0
##
##
          Otu05275 Otu05276 Otu05277
                                            Otu05278 Otu05279 Otu05280
                                      0 1.362194e-05
## CSI002
                  0
                            0
                                                              0
                                                                        0
## CSI013
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
```

```
## CSI023
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
  CST034
                  0
                            0
                                      0 0.000000e+00
                                                             0
##
                                                                       0
                                      0 0.000000e+00
  CSI045
                  0
                            0
                                                             0
                                                                       0
  CSI056
                  0
                            0
                                       0.000000e+00
                                                             Λ
                                                                       0
##
##
   CST066
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
               Otu05281 Otu05282 Otu05283 Otu05284 Otu05285
##
                                                               0tu05286
  CSI002 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
  CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                          0
                                                   0
                                                             0
   CSI034 0.000000e+00
                                0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI056 0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                             Otu05288 Otu05289 Otu05290 Otu05291 Otu05292
##
               0tu05287
   CSI002 0.000000e+00 4.086581e-05
                                              0
                                                        0
                                                                  0
                                                                           0
##
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                           0
   CSI023 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
                                              0
                                                        0
   CSI034 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                           0
   CSI045 3.265093e-05 0.000000e+00
                                                                  0
                                                                           0
                                              0
                                                        0
   CSI056 1.959286e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                           0
##
   CSI066 1.916847e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                           0
           Otu05293 Otu05294 Otu05295 Otu05296 Otu05297 Otu05298
                                                                         Otu05299
##
## CSI002
                  0
                            0
                                     0
                                                         0
                                               0
                                                                   0.000000e+00
   CSI013
                            0
                                                         0
##
                  0
                                     0
                                               0
                                                                   0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
  CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 7.579634e-05
  CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
                            0
                                               0
                                                         0
##
   CSI056
                  0
                                      0
                                                                   0 0.00000e+00
   CSI066
                            0
                  0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
##
##
          Otu05300
                    Otu05301 Otu05302
                                            Otu05303 Otu05304
                                                                    Otu05305
## CSI002
                  0
                            0
                                       1.362194e-05
                                                             0 0.00000e+00
##
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                             0 6.391614e-05
##
   CSI023
                  0
                            0
                                      0 0.000000e+00
                                                             0 0.00000e+00
                  0
                            0
##
   CSI034
                                       0.000000e+00
                                                             0 0.00000e+00
   CSI045
                  0
                            0
                                        0.000000e+00
                                                               0.000000e+00
##
                            0
                                      0 0.000000e+00
##
  CST056
                  0
                                                             0 3.918572e-05
##
   CSI066
                            0
                                      0 0.00000e+00
                                                             0 9.584236e-05
##
               Otu05306 Otu05307 Otu05308 Otu05309
                                                          Otu05310
                                                                        Otu05311
   CSI002 2.724387e-05
                                0
                                          0
                                                   0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
                                0
                                          0
                                                   0 6.391614e-05 0.000000e+00
   CSI023 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
                                0
   CSI034 0.000000e+00
                                0
                                          0
                                                   0 1.894908e-05 3.789817e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00 0.000000e+00
                                0
                                          0
   CSI056 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
                                0
   CSI066 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
                                                              Otu05316 Otu05317
##
                        Otu05313 Otu05314
                                                0tu05315
           Otu05312
##
  CSI002
                  0 0.00000e+00
                                          0 2.724387e-05 6.810968e-05
                                                                                0
   CSI013
##
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
                                          0 0.000000e+00 0.000000e+00
   CSI023
                  0 0.00000e+00
                                                                                0
##
   CSI034
                    7.579634e-05
                                          0 3.789817e-05 5.684725e-05
                                                                                0
                                          0 0.000000e+00 0.000000e+00
                                                                                0
##
   CSI045
                  0 0.000000e+00
##
  CSI056
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
## CSI066
                  0 0.00000e+00
                                          0 3.833694e-05 0.000000e+00
                                                                                0
##
          Otu05318 Otu05319 Otu05320 Otu05321 Otu05322 Otu05323
                                                                         Otu05324
```

```
## CSI002
                  0
                            0
                                                                   0 0.00000e+00
  CSI013
                  0
                            0
                                                         0
                                                                   0 0.000000e+00
##
                                      0
                                               0
  CSI023
##
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.00000e+00
  CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 3.789817e-05
##
##
  CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
##
  CSI056
                  0
                            0
##
   CSI066
                                      0
                                                                   0 0.00000e+00
               Otu05325 Otu05326 Otu05327
##
                                                 0tu05328
                                                               Otu05329 Otu05330
   CSI002 0.0000000000
                                0
                                          0 0.000000000 0.000000e+00
                                                                                0
                                0
   CSI013 0.0000000000
                                          0 0.000000000 0.000000e+00
                                                                                0
   CSI023 0.0000000000
                                0
                                          0 0.000000000 0.000000e+00
                                                                                0
   CSI034 0.0000000000
                                0
                                          0 0.000000000 1.894908e-05
                                                                                0
   CSI045 0.0000000000
                                0
                                          0 0.0000000000 0.000000e+00
                                                                                0
                                0
   CSI056 0.0001763357
                                          0 0.0001175572 0.000000e+00
                                                                                0
   CSI066 0.0000000000
                                0
                                          0 0.000000000 0.000000e+00
                                                                                0
##
               Otu05331 Otu05332 Otu05333 Otu05334
                                                          Otu05335 Otu05336
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
##
                                                                            0
   CSI013 0.000000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
  CSI023 0.000000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
                                0
## CSI034 7.579634e-05
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
   CSI045 3.265093e-05
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
  CSI066 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
##
                                                                            0
           Otu05337 Otu05338 Otu05339 Otu05340 Otu05341 Otu05342 Otu05343
##
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                                                   0
##
  CSI034
                  0
                                      0
                                               0
                                                         0
                                                                             0
                            0
  CSI045
                  0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
## CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
          Otu05344 Otu05345
                                  Otu05346
                                                 Otu05347 Otu05348 Otu05349
## CSI002
                  0
                            0 2.724387e-05 0.000000e+00
                                                                  0
                                                                            0
  CSI013
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
   CSI023
                  0
                              0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
  CSI034
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
##
  CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI056
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
  CSI066
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
##
##
               Otu05350
                             Otu05351 Otu05352 Otu05353 Otu05354 Otu05355
  CSI002 1.362194e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
  CSI013 0.000000e+00 9.587421e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                                                  0
                                              0
                                                        0
                                                                            0
                                              0
                                                                  0
   CSI034 0.000000e+00 0.000000e+00
                                                        0
                                                                            0
   CSI045 0.000000e+00 0.000000e+00
                                                                  0
                                               0
                                                        0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                              0
                                                        0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0
           Otu05356 Otu05357
##
                                  Otu05358 Otu05359 Otu05360 Otu05361
                            0 0.000000e+00
## CSI002
                  0
                                                    0
                                                             0
                                                                       0
##
  CSI013
                  0
                            0 1.917484e-04
                                                    0
                                                              0
                                                                       0
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
##
  CSI023
## CSI034
                  0
                            0 1.894908e-05
                                                    0
                                                              0
                                                                       0
## CSI045
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
## CSI056
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                       0
```

```
## CSI066
                            0 0.00000e+00
                                                             0
##
               Otu05362 Otu05363 Otu05364 Otu05365
                                                         0t.1105366
                                                                       Ot:1105367
  CSI002 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
                                0
                                         0
   CSI013 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                0
                                                   0 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                         0
  CSI056 1.175572e-04
                                0
                                         0
                                                   0 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
                                0
                                         0
                                                     0.000000e+00 0.000000e+00
##
          Otu05368
                        Otu05369 Otu05370 Otu05371
                                                     0tu05372
                                                                   Otu05373
  CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                             0 0.00000e+00
## CSI013
                                         0
                                                   0
                  0 0.00000e+00
                                                             0 0.000000e+00
##
  CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
                                                   0
                                                             0 0.00000e+00
  CSI034
                  0 5.684725e-05
                                         0
  CSI045
                  0 0.000000e+00
                                         0
                                                   0
##
                                                             0.0.000000e+00
##
  CSI056
                  0 0.00000e+00
                                         0
                                                   0
                                                              1.959286e-05
                                         0
                                                   0
##
   CSI066
                  0 0.00000e+00
                                                             0 0.00000e+00
##
          0tu05374
                        Otu05375 Otu05376
                                                Otu05377
                                                              Otu05378 Otu05379
## CSI002
                  0 0.00000e+00
                                         0 2.724387e-05 0.000000e+00
                                                                               0
## CSI013
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
  CSI023
                  0 0.000000e+00
                                         0 0.000000e+00 2.041025e-05
                                                                               0
                  0 1.894908e-05
                                         0 3.789817e-05 5.684725e-05
  CST034
                                         0 0.000000e+00 0.000000e+00
##
  CSI045
                  0 0.00000e+00
                                                                               0
                                         0 0.000000e+00 0.000000e+00
##
   CSI056
                    0.000000e+00
##
   CSI066
                  0
                    0.000000e+00
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
          Otu05380
                    Otu05381
                                  Otu05382 Otu05383 Otu05384 Otu05385
                                                                        Otu05386
## CSI002
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                                                0
##
  CSI013
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
  CSI023
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
  CSI034
                  0
                            0 9.474542e-05
                                                   0
                                                             0
                                                                      0
                                                                                0
##
  CSI045
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
   CSI056
                  0
                            0
                             0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
   CSI066
                  0
                            0
                              0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
          Otu05387 Otu05388
##
                                  Otu05389
                                                Otu05390 Otu05391 Otu05392
  CSI002
                  0
                            0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
  CSI013
                            0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
                  0
## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
## CSI034
                  Ω
                            0 1.136945e-04 3.789817e-05
                                                                 0
                                                                           0
                  0
                            0 9.795279e-05 0.000000e+00
                                                                 0
                                                                           0
   CSI045
                            0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
##
  CST056
                  \cap
                            0 0.000000e+00 0.000000e+00
   CSI066
                        Otu05394 Otu05395 Otu05396 Otu05397 Otu05398 Otu05399
##
          Otu05393
##
   CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                             0
                                                                      0
                                                                                0
  CSI013
                  0 0.000000e+00
                                         0
                                                   0
##
   CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                         0
                                                   0
                                                             0
                                                                                0
##
   CSI034
                  0 9.474542e-05
                                                                      0
##
   CSI045
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                         0
                                                   0
                                                             0
##
   CSI056
                  0 0.000000e+00
                                                                      0
                                                                                0
##
   CST066
                  0 0.000000e+00
                                         0
                                                             0
                                                                      0
                                                                                0
##
               Otu05400 Otu05401
                                      Otu05402
                                                    Otu05403 Otu05404
   CSI002 0.000000e+00
                                0 1.362194e-05 0.000000e+00
                                                                     0
## CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                     0
                                0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                                                                     0
## CSI034 1.894908e-05
                                0 7.579634e-05 1.894908e-05
                                                                     0
```

```
## CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
   CSI066 0.000000e+00
                                0 0.000000e+00 3.833694e-05
                                                                      0
##
               Otu05405 Otu05406 Otu05407 Otu05408 Otu05409 Otu05410 Otu05411
##
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI013 0.000000e+00
   CSI023 0.000000e+00
                                                    0
                                                             0
                                                                                 0
                                0
                                          0
                                                                       0
  CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                    0
                                                             Λ
                                                                                 0
   CSI056 3.918572e-05
                                                                       Λ
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                                                 0
##
          Otu05412
                        Otu05413 Otu05414
                                                Otu05415
                                                              Otu05416 Otu05417
##
   CSI002
                  0 0.000000e+00
                                          0 0.000000e+00 9.535356e-05
                                                                                0
##
   CSI013
                  0 3.195807e-05
                                          0 0.000000e+00 0.000000e+00
                                                                                0
  CSI023
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
##
   CSI034
                  0 0.00000e+00
                                          0 7.579634e-05 0.000000e+00
                                                                                0
##
   CSI045
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
   CSI056
                    0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
                                          0 0.000000e+00 3.833694e-05
##
   CST066
                  0.000000e+00
                                                                                0
##
           Otu05418 Otu05419
                                  Otu05420 Otu05421
                                                          Otu05422 Otu05423
##
  CSI002
                  \cap
                            0 8.173162e-05
                                                    0 0.00000e+00
                                                                           0
  CSI013
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00
                                                                           0
## CSI023
                                                                           0
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
##
  CSI034
                  0
                            0
                             0.000000e+00
                                                    0 0.00000e+00
                                                                           0
                                                                           0
##
  CST045
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
   CSI056
                  0
                            0
                             0.000000e+00
                                                    0 0.00000e+00
                                                                           0
   CSI066
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00
                                                                           0
##
##
          Otu05424
                    Otu05425
                              Otu05426 Otu05427
                                                      Otu05428 Otu05429
                                                                         Otu05430
                                                                       0
##
   CSI002
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                                 0
##
  CSI013
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI023
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI034
                  0
                            0
                                     0
                                               0 1 894908e-05
                                                                       0
                                                                                 0
   CSI045
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                            0
                                                                                 0
##
   CSI056
                  0
                                     0
                                               0 0.00000e+00
                                                                       0
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
   CSI066
               Otu05431 Otu05432 Otu05433 Otu05434
                                                                        Otu05436
##
                                                          0tu05435
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
  CSI013 6.391614e-05
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI034 1.894908e-05
                                0
                                          0
                                                    0 5.684725e-05 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
   CSI066 1.916847e-05
                                          0
                                                    0 0.000000e+00 3.833694e-05
                                  Otu05439 Otu05440 Otu05441 Otu05442 Otu05443
##
           Otu05437 Otu05438
## CSI002
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
## CSI013
                  0
                                                    0
                                                             0
                                                                       0
                            0 0.00000e+00
##
  CSI023
                  0
                            0
                             0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                  0
                                                    0
                                                                       0
                                                                                 0
   CSI034
                              1.894908e-05
                                                             0
                              0.000000e+00
##
  CSI045
                  0
                            0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI056
                  0
                            0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                  0
                            0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
##
          Otu05444 Otu05445 Otu05446 Otu05447
                                                      Otu05448
                                                                    Otu05449
## CSI002
                  0
                            0
                                     0
                                               0 0.000000e+00 1.362194e-05
## CSI013
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
```

```
## CSI023
                            0
                                                0 0.000000e+00 0.000000e+00
  CST034
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
##
                                      0
## CSI045
                  0
                            0
                                      0
                                                0 3.265093e-05 0.000000e+00
  CSI056
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
##
   CST066
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
           Otu05450 Otu05451 Otu05452 Otu05453 Otu05454 Otu05455 Otu05456
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                0
                                                          0
                                                                    0
##
  CSI034
                  0
                                      0
                                                                              0
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI056
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                                    0
                                                                              0
                         Otu05458 Otu05459 Otu05460
##
           Otu05457
                                                           Otu05461 Otu05462
## CSI002
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00
                                                                             0
##
   CSI013
                  0 0.00000e+00
                                          0
                                                    0 0.00000e+00
                                                                             0
                                          0
                                                                             0
##
   CSI023
                  0 0.00000e+00
                                                    0 0.00000e+00
   CSI034
                  0 0.000000e+00
                                          0
                                                      0.000000e+00
                                                                             0
   CSI045
                                          0
                                                                             0
##
                  0 0.00000e+00
                                                      6.530186e-05
##
   CSI056
                  0 3.918572e-05
                                          0
                                                      0.000000e+00
                                                                             0
##
   CST066
                  0 0.000000e+00
                                                      0.000000e+00
                                                                             0
           Otu05463 Otu05464 Otu05465
                                             Otu05466
                                                      Otu05467 Otu05468 Otu05469
##
## CSI002
                            0
                                                              0
                                                                        0
                  0
                                      0 0.00000e+00
                                                                                  0
   CSI013
                            0
                                                              0
                                                                        0
                                                                                  0
##
                  0
                                      0 1.597904e-04
                                                                                  0
## CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
   CSI034
                  0
                            0
                                      0 7.579634e-05
                                                              0
                                                                                  0
   CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI056
                  0
                                                              0
                                                                        Λ
   CSI066
                            0
                                      0 0.000000e+00
                                                                                  0
##
                  0
##
               Otu05470 Otu05471
                                       Otu05472 Otu05473 Otu05474 Otu05475
##
   CSI002 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI013 0.000000e+00
                                 0 3.195807e-05
                                                         0
                                                                   0
                                                                             0
   CSI023 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
                                                                             0
   CSI034 5.684725e-05
                                 0 1.894908e-05
                                                         0
   CSI045 2.938584e-04
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI056 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
##
##
   CSI066 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
##
           Otu05476
                         Otu05477 Otu05478 Otu05479 Otu05480 Otu05481 Otu05482
## CSI002
                  0 2.724387e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                  0.000000e+00
   CSI023
                  0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
                                          0
                                                                        0
   CSI034
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                                          0
##
   CSI045
                  0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                        Λ
                                                                                  0
##
   CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
##
   CSI066
                  0 0.000000e+00
               Otu05483
##
                             Otu05484 Otu05485 Otu05486 Otu05487 Otu05488
   CSI002 4.086581e-05 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
                                               0
                                                                   0
                                                                             0
   CSI013 0.000000e+00 0.000000e+00
                                                         0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI034 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
                                                                   0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                             0
##
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                                   0
                                                                             0
                                                         0
##
           Otu05489
                         Otu05490 Otu05491 Otu05492
                                                           Otu05493 Otu05494
```

```
## CSI002
                  0 0.000000e+00
                                                    0 0.00000e+00
                                                                             0
## CSI013
                  0 0.000000e+00
                                          0
                                                    0 0.00000e+00
                                                                             0
## CSI023
                  0 0.00000e+00
                                          0
                                                    0 0.00000e+00
                                                                             0
## CSI034
                  0 1.894908e-05
                                          0
                                                    0 0.00000e+00
                                                                             0
## CSI045
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00
                                                                             0
## CSI056
                  0 0.000000e+00
                                          0
                                                    0 1.959286e-05
                                                                             0
                  0 0.000000e+00
                                                    0 0.00000e+00
   CSI066
##
           Otu05495 Otu05496 Otu05497
                                             Otu05498 Otu05499 Otu05500 Otu05501
## CSI002
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                            0
                                                              0
                                                                        0
                                                                                  0
## CSI013
                  0
                                      0 0.000000e+00
## CSI023
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
## CSI034
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
##
   CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                            0
                                      0 1.959286e-05
                                                              0
## CSI056
                  0
                                                                        0
                                                                                  0
##
   CSI066
                  0
                            0
                                      0 3.833694e-05
                                                              0
                                                                        0
                                                                                  0
##
               Otu05502 Otu05503 Otu05504 Otu05505 Otu05506
                                                                Otu05507
  CSI002 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
##
                                                                        0
   CSI013 3.195807e-05
                                          0
                                                    0
                                                              0
                                                                        0
  CSI023 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                 0
## CSI034 7.579634e-05
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI045 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
## CSI056 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
## CSI066 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
               Otu05508 Otu05509 Otu05510 Otu05511 Otu05512 Otu05513 Otu05514
##
## CSI002 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
                                          0
                                                              0
   CSI045 0.000000e+00
                                                    0
                                                                        0
                                                                                  0
   CSI056 1.959286e-05
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI066 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               Otu05515 Otu05516
                                       Otu05517 Otu05518 Otu05519 Otu05520
## CSI002 2.724387e-05
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
  CSI013 3.195807e-05
                                 0 0.000000e+00
                                                                   0
                                                                             0
                                                         0
  CSI023 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
  CSI034 1.894908e-05
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI045 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
## CSI056 0.000000e+00
                                 0 3.918572e-05
                                                         Λ
                                                                   0
                                                                             0
  CSI066 0.000000e+00
                                 0 0.000000e+00
                                                         0
                                                                   0
##
           Otu05521 Otu05522 Otu05523 Otu05524 Otu05525 Otu05526 Otu05527
                            0
## CSI002
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI034
                                      0
## CSI045
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
                                      0
## CSI056
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
                                      0
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                         Otu05529 Otu05530 Otu05531 Otu05532 Otu05533 Otu05534
##
           Otu05528
## CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI013
                  0 6.391614e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI034
                  0 3.789817e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI056
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
```

```
## CSI066
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
##
               Ot:1105535
                            Otu05536 Otu05537 Otu05538 Otu05539 Otu05540
## CSI002 0.000000e+00 1.362194e-05
                                             0
                                                       0
                                                                 0
  CSI013 0.000000e+00 1.278323e-04
                                             0
                                                       0
                                                                 0
                                                                          0
## CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
## CSI034 0.000000e+00 1.894908e-05
                                             0
                                                                 0
                                                                          0
                                                       Ω
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                                 0
                                                       0
## CSI056 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
  CSI066 0.000000e+00 0.000000e+00
                                             0
                                                       Λ
                                                                 0
          Otu05541 Otu05542 Otu05543
##
                                           Otu05544 Otu05545 Otu05546 Otu05547
## CSI002
                           0
                                     0 1.362194e-05
                                                            0
                                                                      0
                                     0 0.000000e+00
## CSI013
                           0
                                                            0
                                                                      0
                                                                                0
                  0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
                  0
                           0
                                                            0
## CSI034
                                     0 1.136945e-04
                                                                      0
                                                                                0
## CSI045
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
## CSI056
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                                                                                0
  CSI066
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
##
##
               Otu05548
                            Otu05549
                                          Otu05550 Otu05551 Otu05552
## CSI002 0.000000e+00 1.362194e-05 0.000000e+00
                                                           0
                                                                     0
## CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
  CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
## CSI034 0.000000e+00 5.684725e-05 0.000000e+00
## CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                           Λ
                                                                     0
   CSI056 1.959286e-05 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                           Λ
                                                                     0
               Otu05553 Otu05554 Otu05555 Otu05556 Otu05557 Otu05558 Otu05559
## CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI013 0.000000e+00
                               0
                                                            0
  CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                                      0
                                                                                0
  CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI066 1.916847e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
          Otu05560
                        Otu05561 Otu05562 Otu05563
##
                                                         Otu05564 Otu05565
## CSI002
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
                  0 0.000000e+00
  CSI013
                                         0
                                                   0 0.000000e+00
                                                                          0
##
## CSI023
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
## CSI034
                  0 1.326436e-04
                                         Λ
                                                   0 0.00000e+00
                                                                          0
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
  CSI045
                  0 0.000000e+00
                                         Λ
                                                                          0
##
  CST056
                                                   0.000000e+00
                                         0
   CSI066
                  0 1.916847e-05
                                                   0 1.916847e-05
          Otu05566 Otu05567 Otu05568 Otu05569 Otu05570
##
                                                              0t_{11}05571
## CSI002
                  0
                           0
                                     0
                                              0
                                                        0 0.000000000
                           0
                                              0
## CSI013
                  0
                                     0
                                                        0 0.000000000
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0 0.000000000
## CSI034
                  0
                           0
                                     0
                                              0
                                                        0 0.000000000
##
  CSI045
                  0
                           0
                                     0
                                              0
                                                        0 0.000000000
                  0
                           0
                                     0
                                              0
##
  CSI056
                                                        0 0.000000000
##
   CSI066
                  0
                           0
                                     0
                                              0
                                                        0 0.0001916847
##
               Otu05572 Otu05573 Otu05574 Otu05575 Otu05576
                                                                   Otu05577
                                                            0 0.000000e+00
## CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                         0
                                                   0
## CSI013 0.000000e+00
                               0
                                                            0 0.00000e+00
## CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0.000000e+00
## CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0 0.000000e+00
```

```
## CSI045 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0 0.000000e+00
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
##
           Otu05578 Otu05579 Otu05580 Otu05581 Otu05582 Otu05583 Otu05584
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                            0
                                                          0
                                                                    0
                  0
                                      0
                                                0
                                                                              0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                0
                                                          0
                                                                    Λ
##
   CSI056
                  \cap
                                      Λ
                                                                              0
##
   CSI066
                  0
                            0
                                                0
                                                          0
                                                                              0
##
                                       Otu05587 Otu05588 Otu05589 Otu05590
               Otu05585 Otu05586
##
   CSI002 0.000000e+00
                                 0 0.000000e+00
                                                         0
                                                                   0
                                                                             0
   CSI013 9.587421e-05
                                                                   0
                                 0 0.00000e+00
                                                         0
                                                                             0
   CSI023 0.000000e+00
                                 0 0.000000e+00
                                                                   0
                                                                             0
                                                         0
   CSI034 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI045 0.000000e+00
                                                                   0
                                 0 0.00000e+00
                                                         0
                                                                             0
   CSI056 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                 0 0.00000e+00
                                                                   0
                                                                             0
##
   CST066 0.000000e+00
                                                         0
##
           Otu05591 Otu05592 Otu05593 Otu05594 Otu05595 Otu05596
                                                                      0tu05597
## CSI002
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                            0
                                                          0
                                                                    0
                  0
                                      0
                                                0
                                                                              0
                            0
##
  CSI034
                  0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                                                0
##
  CST045
                  0
                            0
                                      0
                                                          0
                                                                    0
                                                                              0
   CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu05598 Otu05599
                                                 Otu05601 Otu05602 Otu05603
##
                                   Otu05600
##
                            0 0.000000000 0.000000e+00
                                                                   0
                                                                             0
  CSI002
                  0
## CSI013
                  0
                            0 0.000000000 0.000000e+00
                                                                   0
                                                                             0
##
   CSI023
                  0
                            0 0.000000000 0.000000e+00
                                                                   0
                                                                             0
##
   CSI034
                  0
                              0.0001326436 0.000000e+00
                                                                   0
                                                                             0
##
   CSI045
                  0
                              0.000000000 0.000000e+00
                                                                   0
                                                                             0
   CSI056
                              0.000000000 0.000000e+00
                                                                   0
##
                  0
                                                                             0
##
   CSI066
                            0 0.000000000 0.000000e+00
##
               Otu05604 Otu05605 Otu05606 Otu05607 Otu05608
                                                                     Ot:1105609
   CSI002 0.0000000000
                                 0
                                           0
                                                     0
                                                               0 2.724387e-05
   CSI013 0.0001278323
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI023 0.0000000000
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI034 0.0000000000
                                 0
                                          0
                                                     0
                                                               0.000000e+00
   CSI045 0.0000000000
                                 0
                                          0
                                                     0
                                                               0 0.00000e+00
   CSI056 0.0000000000
                                 0
                                          0
                                                     0
                                                              0 0.00000e+00
                                          0
##
   CSI066 0.0000000000
                                 0
                                                     0
                                                              0 0.000000e+00
           Otu05610 Otu05611 Otu05612 Otu05613 Otu05614 Otu05615
##
                                                                          Otu05616
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 1.225974e-04
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                                                          0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                                    0 5.684725e-05
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
   CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
   CST066
                  0
##
               Otu05617 Otu05618 Otu05619 Otu05620 Otu05621
                                                                     Otu05622
## CSI002 1.362194e-05
                                 0
                                          0
                                                     0
                                                              0 0.000000e+00
## CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0 0.00000e+00
```

```
## CSI023 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0 0.00000e+00
   CSI034 0.000000e+00
                                           0
                                                    0
                                                              0 0.000000e+00
                                 0
   CSI045 0.000000e+00
                                                                0.000000e+00
                                 0
                                           0
                                                    0
   CSI056 0.000000e+00
                                 0
                                           0
                                                    0
                                                                0.000000e+00
##
   CSI066 0.000000e+00
                                 0
                                                    0
                                                                0.000000e+00
           Otu05623 Otu05624 Otu05625
                                             Otu05626 Otu05627
##
                                                                     Otu05628
                            0
## CSI002
                  0
                                      0 0.00000e+00
                                                              0 0.00000e+00
                                                              0 0.000000e+00
## CSI013
                  0
                            0
                                      0 0.00000e+00
##
   CSI023
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
                            0
##
  CSI034
                  0
                                      0 0.000000e+00
                                                              0 1.894908e-05
   CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
                  0
                            0
##
   CSI056
                                      0 0.000000e+00
                                                              0
                                                                0.000000e+00
##
   CSI066
                  0
                            0
                                      0 5.750542e-05
                                                              0 0.000000e+00
                                                                Otu05634
##
           Otu05629 Otu05630
                                   Otu05631 Otu05632 Otu05633
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
##
   CSI013
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                              0
                                                                        0
##
   CSI023
                  0
                            0
                              0.000000e+00
                                                    0
   CSI034
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                    0
                                                              0
##
   CSI045
                  0
                            0
                              0.000000e+00
                                                                        0
##
   CSI056
                  0
                              3.918572e-05
                                                    0
                                                              0
                                                                        0
##
   CST066
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
               Otu05635 Otu05636
                                       Otu05637 Otu05638 Otu05639 Otu05640
##
## CSI002 2.724387e-05
                                                         0
                                                                   0
                                                                             0
                                 0 0.00000e+00
   CSI013 9.587421e-05
                                                                   0
                                 0 0.00000e+00
                                                         0
                                                                             0
                                                                   0
                                                                             0
   CSI023 0.000000e+00
                                 0 0.00000e+00
                                                         0
   CSI034 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI045 3.265093e-05
                                 0 0.000000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
                                                                             0
   CSI056 0.000000e+00
                                 0 3.918572e-05
                                                         0
                                                         0
                                                                   0
                                                                             0
   CSI066 0.000000e+00
                                 0 1.916847e-05
##
##
               Otu05641 Otu05642 Otu05643 Otu05644 Otu05645 Otu05646 Otu05647
##
   CSI002 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI023 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0
                                                                                  0
                                                                        0
   CSI045 0.000000e+00
                                 0
                                           0
                                                    0
                                                               0
                                                                        0
                                                                                  0
   CSI056 0.000000e+00
                                 0
                                           0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI066 0.000000e+00
                                 0
                                           0
                                                              0
                                                                        0
                                                                                  0
##
           Otu05648 Otu05649 Otu05650 Otu05651
                                                       Otu05652
                                                                     Otu05653
## CSI002
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                                                0 0.000000e+00 0.000000e+00
  CSI013
                            0
                                      0
##
                  0
  CSI023
                            0
                                                0 0.000000e+00 2.041025e-05
                  0
                                      0
## CSI034
                  0
                            0
                                      0
                                                0 1.894908e-05 0.000000e+00
##
   CSI045
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                            0
   CSI056
                  0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
                            0
                                      0
##
   CSI066
                  0
                                                0 0.000000e+00 0.000000e+00
           Otu05654
                    Otu05655
                              Otu05656 Otu05657 Otu05658 Otu05659 Otu05660
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                                                0
                                                          0
                                                                    0
##
   CSI013
                  0
                            0
                                      0
                                                                              0
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI045
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu05661 Otu05662 Otu05663
                                             Otu05664 Otu05665 Otu05666 Otu05667
```

```
## CSI002
                  0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                  0
  CSI013
                            0
                                                              0
                                                                                  0
##
                  0
                                      0 9.587421e-05
                                                                       0
  CSI023
                                      0 0.000000e+00
##
                  0
                            0
                                                              0
                                                                       0
                                                                                  0
                            0
                                        1.894908e-05
  CSI034
                  0
                                                              0
                                                                       0
                                                                                 0
##
##
  CSI045
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
                                                                                  0
                            0
                                                              0
                                                                       0
                                                                                  0
##
  CSI056
                  \cap
                                      0 0.000000e+00
                            0
                                                              0
##
   CSI066
                  0
                                      0 0.00000e+00
                                                                        0
                                                                                  0
                                            Otu05671 Otu05672 Otu05673 Otu05674
##
          Otu05668 Otu05669 Otu05670
## CSI002
                  0
                            0
                                      0 4.086581e-05
                                                              0
                                                                       0
                                                                                  O
                                                              0
                                                                       0
                                                                                  0
##
  CSI013
                  0
                            0
                                      0 0.000000e+00
  CSI023
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
                                                                       0
                                                                                  0
##
  CSI034
                                        0.000000e+00
##
   CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                  0
                            0
                                                              0
##
   CSI056
                  0
                                      0 0.00000e+00
                                                                       0
                                                                                  0
   CSI066
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                  0
##
##
           Otu05675
                    Otu05676 Otu05677
                                            Otu05678 Otu05679
                                                                Otu05680
                                                                         Otu05681
## CSI002
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                  0
##
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                                      0 0.000000e+00
  CSI023
                            0
                                                              0
                                                                                 0
##
                  0
                                                                       0
##
  CSI034
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
                                                                                  0
##
  CSI045
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
                                                                                  0
   CSI056
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                                  0
##
                            0
                                      0 0.000000e+00
                                                              0
                                                                                  O
##
  CSI066
                  \cap
                                                 Otu05685 Otu05686
##
          0tu05682
                         Otu05683 Otu05684
                                                                         0tu05687
## CSI002
                  0 4.086581e-05
                                          0 0.000000e+00
                                                                  0 0.000000e+00
  CSI013
                  0 3.195807e-05
                                          0 0.00000e+00
                                                                  0 0.000000e+00
  CSI023
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                  0 2.041025e-05
##
##
   CSI034
                  0 1.894908e-05
                                          0 7.579634e-05
                                                                  0 0.00000e+00
                  0 0.000000e+00
                                          0 0.000000e+00
##
   CSI045
                                                                  0 0.00000e+00
   CSI056
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
##
   CSI066
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
##
               Otu05688
                             Otu05689 Otu05690 Otu05691
                                                               Otu05692
   CSI002 2.724387e-05 0.000000e+00
                                              0
                                                        0 0.00000e+00
   CSI013 0.000000e+00 9.587421e-05
                                                        0 3.195807e-05
                                              0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
   CSI034 0.000000e+00 0.000000e+00
                                              0
                                                        0 1.894908e-05
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
   CSI056 0.000000e+00 1.959286e-05
                                              0
                                                        0 0.00000e+00
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
##
                             Otu05694 Otu05695 Otu05696 Otu05697 Otu05698
##
               Otu05693
  CSI002 1.362194e-05 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
                                              0
                                                                  0
   CSI034 0.000000e+00 0.0001136945
                                                        0
                                                                            0
   CSI045 0.000000e+00 0.0000000000
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI056 0.000000e+00 0.0000000000
                                              0
                                                                  0
                                                        0
                                                                            0
##
   CSI066 0.000000e+00 0.0000000000
                                              0
                                                        0
                                                                  0
                                                                            0
##
               Otu05699
                             Otu05700 Otu05701
                                                Otu05702 Otu05703 Otu05704
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 3.195807e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI034 1.894908e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
## CSI045 9.795279e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
## CSI056 3.918572e-05 3.918572e-05
                                              0
                                                        0
                                                                  0
                                                                            0
```

```
## CSI066 1.916847e-05 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
##
              Otu05705 Otu05706
                                      Otu05707 Otu05708
                                                             Ot1105709 Ot1105710
## CSI002 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
                               0 0.000000e+00
  CSI013 3.195807e-05
                                                       0 3.195807e-05
                                                                              0
  CSI023 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
  CSI034 0.000000e+00
                               0 1.894908e-05
                                                       0 0.00000e+00
                                                                               0
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000e+00
                                                                               0
## CSI056 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000e+00
                                                                              0
   CSI066 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
##
          Otu05711
                        Otu05712 Otu05713 Otu05714 Otu05715 Otu05716
  CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
## CSI013
                                         0
                                                   0
                                                            0
                                                                      0
                  0 0.000000e+00
  CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
   CSI034
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
  CSI045
                                         0
                                                   0
                                                            0
                                                                      0
                  0.0.000000e+00
##
   CSI056
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                         0
                                                   0
                                                            0
                                                                      0
##
   CSI066
                  0 3.833694e-05
##
              Otu05717 Otu05718 Otu05719
                                               Otu05720 Otu05721 Otu05722
## CSI002 2.724387e-05
                               0
                                         0 1.362194e-05
                                                                 0
                                                                          0
## CSI013 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                 0
                                                                          0
  CSI023 2.041025e-05
                               0
                                         0 0.000000e+00
                                                                 0
                                                                          0
## CSI034 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                 0
## CSI045 3.265093e-05
                               0
                                                                 Ω
                                         0 0.00000e+00
                                                                          0
  CSI056 0.000000e+00
                               0
                                                                 0
                                         0 0.000000e+00
                                                                 Ω
  CSI066 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                          0
          Otu05723 Otu05724 Otu05725 Otu05726 Otu05727
                                                              Otu05728 Otu05729
## CSI002
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                                0
                  0
## CSI013
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
                                                                                0
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                                0
## CSI034
                  0
                           0
                                     0
                                              0
                                                        0 1.894908e-05
                                                                                0
## CSI045
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                                0
##
  CSI056
                  0
                           0
                                     0
                                              0
                                                        0 0.000000e+00
                                                                                0
                                     0
   CSI066
                  0
                           0
                                              0
                                                        0 0.00000e+00
                                                                                0
          Otu05730 Otu05731
##
                                 Otu05732 Otu05733
                                                         Otu05734
                                                                       Otu05735
## CSI002
                  0
                           0 0.00000e+00
                                                   0 0.000000e+00 1.362194e-05
  CSI013
                  0
                           0 2.876226e-04
                                                   0 0.000000e+00 0.000000e+00
##
## CSI023
                  0
                           0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI034
                  Ω
                           0 0.000000e+00
                                                   0 3.789817e-05 0.000000e+00
                  0
                             0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
   CSI045
                                                   0 0.000000e+00 0.000000e+00
##
  CSI056
                  \cap
                           0 0.00000e+00
   CST066
                  0
                           0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
##
              Otu05736 Otu05737 Otu05738 Otu05739 Otu05740 Otu05741 Otu05742
   CSI002 1.362194e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                               0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI013 0.000000e+00
                                         0
   CSI023 2.041025e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI034 3.789817e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                         0
                                                                                0
   CSI056 0.000000e+00
                                                   0
                                                            0
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
          Otu05743 Otu05744 Otu05745
                                           0tu05746
                                                         Otu05747 Otu05748
## CSI002
                  0
                           0
                                     0 1.362194e-05 0.000000e+00
                                                                          0
                           0
## CSI013
                  0
                                     0 3.195807e-05 6.391614e-05
                                                                          0
                                     0 0.000000e+00 0.000000e+00
## CSI023
                  0
                           0
                                                                          0
## CSI034
                  0
                           0
                                     0 1.894908e-05 0.000000e+00
                                                                          0
```

```
## CSI045
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
  CST056
                  0
                                      0 0.000000e+00 5.877858e-05
                                                                            0
##
                            0
##
   CSI066
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
          Otu05749 Otu05750
                                  Otu05751 Otu05752
                                                          Otu05753
                                                                        Otu05754
##
  CST002
                  0
                            0 0.000000e+00
                                                    0 1.362194e-05 1.362194e-05
  CSI013
                            0 0.000000e+00
                                                    0 3.195807e-05 3.195807e-05
##
                  0
                                                    0 0.000000e+00 0.000000e+00
  CSI023
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI034
                  0
                            0 1.894908e-05
##
   CSI045
                  Ω
                            Ω
                              0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
   CSI056
                  \cap
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
   CSI066
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 3.833694e-05
               Otu05755 Otu05756 Otu05757 Otu05758 Otu05759 Otu05760 Otu05761
##
##
   CSI002 4.086581e-05
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                0
                                          0
                                                                                 0
   CSI013 0.000000e+00
                                                    0
                                                              0
                                                                       0
   CSI023 0.000000e+00
                                0
                                                    0
                                                              0
                                                                                 0
                                          0
                                                                       0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                0
                                          0
                                                    0
                                                              0
                                                                                 0
   CSI045 0.000000e+00
                                                                       0
   CSI056 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                 0
   CSI066 0.000000e+00
                                                              0
                                                                                 0
##
                                0
                                          0
                                                    0
                                                                       0
##
               0tu05762
                             Otu05763
                                           Otu05764 Otu05765 Otu05766 Otu05767
   CSI002 1.362194e-05 0.000000e+00 1.362194e-05
                                                             0
                                                                      0
                                                                                0
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                             0
                                                                                0
   CSI034 1.894908e-05 0.000000e+00 5.684725e-05
                                                                      0
                                                                                0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                             0
                                                                      0
                                                                                0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                             0
                                                                      0
                                                                                0
           Otu05768 Otu05769 Otu05770 Otu05771 Otu05772 Otu05773
##
                                                                     Otu05774
##
  CSI002
                  0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
  CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI056
                            0
                                               0
                                                         0
                                                                   0
##
                  0
                                      0
                                                                             0
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
##
   CSI066
                                                                             0
          Otu05775
                         Otu05776 Otu05777 Otu05778 Otu05779 Otu05780
##
## CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                       0
## CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
  CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
##
  CSI034
                                          0
                                                    0
                                                              0
   CSI045
                  0 0.00000e+00
                  0 1.959286e-05
                                          0
                                                    0
                                                              0
                                                                       0
##
   CST056
##
   CSI066
                  0 3.833694e-05
                                          0
                                                    0
                                                              0
                                                                       0
               Otu05781 Otu05782
                                       Otu05783 Otu05784 Otu05785 Otu05786
##
   CSI002 1.362194e-05
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI013 2.556646e-04
                                0 0.000000e+00
                                                                  0
                                                                            0
                                                        0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                            0
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
   CSI056 0.000000e+00
                                0 5.877858e-05
                                                        0
                                                                  0
                                                                            0
                                0 0.000000e+00
                                                        0
##
   CSI066 0.000000e+00
                                                                            0
##
               Otu05787 Otu05788 Otu05789 Otu05790 Otu05791
                                                                    0tu05792
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
## CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 9.587421e-05
```

```
## CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.00000e+00
  CSI034 3.789817e-05
                                          0
                                                   0
                                0
                                                             0 9.474542e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
          Otu05793 Otu05794 Otu05795 Otu05796 Otu05797
                                                               Otu05798 Otu05799
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
##
  CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
                                                                                0
##
  CSI034
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
   CSI045
                  0
                            0
                                     0
                                               0
                                                         0 3.265093e-05
                                                                                0
                            0
                                     0
                                               0
                                                                                0
##
   CSI056
                  0
                                                         0 0.00000e+00
##
   CSI066
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
               Otu05800 Otu05801 Otu05802 Otu05803
##
                                                          Otu05804 Otu05805
  CSI002 5.448775e-05
                                0
                                          0
                                                   0 0.000000000
                                                                           0
##
   CSI013 0.000000e+00
                                0
                                          0
                                                   0 0.000000000
                                                                           0
   CSI023 0.000000e+00
                                0
                                          0
                                                     0.000000000
                                                                           0
   CSI034 0.000000e+00
                                0
                                          0
                                                     0.000000000
                                                                           0
   CSI045 0.000000e+00
                                          0
                                0
                                                     0.000000000
                                                                           0
##
   CSI056 0.000000e+00
                                0
                                          0
                                                     0.000000000
                                                                           0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                   0 0.000000000
                                                                           0
               Otu05806 Otu05807
                                      Otu05808 Otu05809 Otu05810 Otu05811
##
## CSI002 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                           0
   CSI013 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                           0
                                                                 0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                           0
   CSI034 0.000000e+00
                                0 1.894908e-05
                                                       0
                                                                 0
                                                                           0
   CSI045 3.265093e-05
                                                       0
                                                                 0
                                                                           0
                                0 0.00000e+00
                                                                 0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                           0
                                                                 0
                                0 0.000000e+00
                                                                           0
##
   CSI066 0.000000e+00
                                                        0
##
               Otu05812 Otu05813
                                      Otu05814
                                                    Otu05815 Otu05816 Otu05817
##
   CSI002 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
                                0 1.894908e-05 1.894908e-05
                                                                      0
   CSI034 0.000000e+00
                                                                               0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
##
                                                                               0
##
   CSI066 5.750542e-05
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
##
               Otu05818
                             0 \pm 1105819
                                           Otu05820 Otu05821 Otu05822
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                            0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
   CSI034 0.000000e+00 1.894908e-05 0.000000e+00
                                                            0
                                                                      0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                            \cap
                                                                      0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
                                                            Λ
                                                                      0
   CSI066 0.000000e+00 0.000000e+00 1.916847e-05
               Otu05823 Otu05824 Otu05825 Otu05826 Otu05827
##
                                                               Otu05828
   CSI002 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                       0
   CSI013 0.0000000000
                                0
                                          0
                                                   0
                                                             0
   CSI023 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI034 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI045 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
   CSI056 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
##
  CSI066 0.0000000000
                                0
                                          0
                                                   0
                                                             0
                                                                       0
##
               Otu05829 Otu05830
                                      Otu05831
                                                    Otu05832 Otu05833 Otu05834
```

```
## CSI002 4.086581e-05
                                0 2.724387e-05 0.000000e+00
                                                                                0
  CSI013 0.000000e+00
                                0 0.000000e+00 6.391614e-05
                                                                      0
                                                                                0
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
  CSI034 1.894908e-05
                                0 1.894908e-05 0.000000e+00
                                                                      0
                                                                                0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
##
                                                                                0
                                0 0.000000e+00 5.750542e-05
   CSI066 0.000000e+00
                                                                      0
                                                                                0
##
           Otu05835 Otu05836 Otu05837 Otu05838
                                                      Otu05839 Otu05840
## CSI002
                  0
                            0
                                      0
                                               0 2.724387e-05
                                                                       0
                            0
                                               0 0.00000e+00
## CSI013
                  0
                                      0
                                                                       0
## CSI023
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                        0
                            0
                                                                       0
## CSI034
                  0
                                      0
                                               0 3.789817e-05
##
   CSI045
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                            0
##
   CSI056
                  0
                                      0
                                               0 0.00000e+00
                                                                       0
   CSI066
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
##
                  0
##
               Otu05841 Otu05842 Otu05843 Otu05844 Otu05845
                                                                Otu05846
                                                                         Otu05847
   CSI002 0.000000e+00
                                0
##
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI013 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
   CSI023 0.000000e+00
                                                    0
                                                              0
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                                0
                                          0
                                                                       0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              Λ
                                                                       0
                                                                                 O
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                 0
                                0
                                          0
                                                    0
                                                              0
##
  CSI066 0.000000e+00
                                                                       0
                                                                                 0
               Otu05848 Otu05849 Otu05850 Otu05851
                                                      Otu05852 Otu05853 Otu05854
##
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI023 2.041025e-05
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
                                          0
                                                                                 0
   CSI034 0.000000e+00
                                0
                                                    0
                                                              0
                                                                        0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                 0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
               Otu05855 Otu05856 Otu05857 Otu05858 Otu05859
                                                                Otu05860 Otu05861
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI013 0.000000e+00
                                                              0
                                                                                 0
                                0
                                          0
                                                    0
                                                                       0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI034 0.000000e+00
                                0
                                          0
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                                                              0
                                                                                 0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                 0
##
  CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              Λ
                                                                       0
                                                                                 O
   CSI066 0.000000e+00
                                0
                                          0
                                                                                 0
##
                                                    0
##
                                                Otu05865
          Otu05862
                         Otu05863 Otu05864
                                                               Ot1105866 Ot1105867
## CSI002
                  0 0.000000e+00
                                          0 0.000000e+00 0.0000000000
                                                                                0
## CSI013
                  0 0.00000e+00
                                          0 0.000000e+00 0.0001278323
                                                                                0
## CSI023
                  0 0.00000e+00
                                          0 0.000000e+00 0.0000000000
                                                                                0
##
                  0 0.000000e+00
                                          0 1.894908e-05 0.0000000000
                                                                                Λ
  CSI034
## CSI045
                  0 0.000000e+00
                                          0 0.000000e+00 0.0000000000
                                                                                0
## CSI056
                                          0 0.000000e+00 0.0000000000
                  0 0.00000e+00
                                                                                0
##
  CSI066
                  0 1.916847e-05
                                          0 0.000000e+00 0.0000000000
                                                                                0
##
           Otu05868
                         Otu05869 Otu05870
                                                 Otu05871
                                                               Otu05872 Otu05873
## CSI002
                  0 0.000000e+00
                                          0 2.724387e-05 1.362194e-05
                                                                                0
##
  CSI013
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
                                          0 0.000000e+00 2.041025e-05
##
  CSI023
                  0.0.000000e+00
                                                                                0
## CSI034
                  0 0.000000e+00
                                          0 0.000000e+00 1.894908e-05
                                                                                0
## CSI045
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
## CSI056
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
```

```
## CSI066
                  0 0.00000e+00
                                         0 0.000000e+00 0.000000e+00
          Otu05874
##
                        Otu05875 Otu05876 Otu05877 Otu05878
                                                                   Ot:1105879
                  0 0.000000e+00
## CSI002
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI013
                  0 3.195807e-05
                                          0
                                                   0
                                                             0 3.195807e-05
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
                  0 0.000000e+00
                                         0
                                                   0
## CSI034
                                                             0 0.00000e+00
                                         0
## CSI045
                  0 0.00000e+00
                                                             0 0.00000e+00
                  0 0.000000e+00
## CSI056
                                         0
                                                   0
                                                             0 0.00000e+00
##
  CSI066
                  0 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
          Otu05880 Otu05881 Otu05882 Otu05883 Otu05884 Otu05885 Otu05886
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
                            0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI066
                                     0
          Otu05887 Otu05888 Otu05889 Otu05890
                                                     Otu05891 Otu05892 Otu05893
## CSI002
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                0
## CSI013
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                0
## CSI034
                  0
                            0
                                               0 0.000000e+00
                                                                                 0
## CSI045
                            0
                                                                                0
                  0
                                     0
                                               0 0.00000e+00
                                                                       0
## CSI056
                            0
                  0
                                               0 3.918572e-05
                                                                                0
## CSI066
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                0
          Otu05894
                        Otu05895 Otu05896 Otu05897 Otu05898 Otu05899
## CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                       0
                                         0
                                                             0
  CSI013
                  0 3.195807e-05
                                                   0
                                                                       0
                                                             0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                                       0
  CSI034
                  0 1.894908e-05
                                         0
                                                   0
                                                             0
                                                                       0
##
  CSI045
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                       0
##
   CSI056
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
   CSI066
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                       0
               Otu05900 Otu05901 Otu05902 Otu05903 Otu05904
##
                                                               Otu05905
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
  CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
  CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
  CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             Λ
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
  CSI056 1.959286e-05
                                          0
                                                   0
                                                             Λ
                                0
                                                                       0
                                          0
                                                             0
   CSI066 0.000000e+00
##
               Otu05906 Otu05907 Otu05908 Otu05909 Otu05910
                                                                   0t_{11}05911
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 1.362194e-05
                                0
                                                   0
                                                             0 6.391614e-05
  CSI013 0.000000e+00
                                         0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
                                0
                                         0
                                                   0
   CSI056 0.000000e+00
                                                             0 0.00000e+00
   CSI066 0.000000e+00
                                0
                                         0
                                                             0 0.000000e+00
##
          Otu05912
                        Otu05913
                                      Otu05914
                                                    Otu05915
                                                                  Otu05916
## CSI002
                  0 1.362194e-05 0.000000e+00 0.000000e+00 4.086581e-05
## CSI013
                  0 3.195807e-05 0.000000e+00 0.000000e+00 3.195807e-05
## CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI034
                  0 5.684725e-05 3.789817e-05 0.000000e+00 0.000000e+00
```

```
## CSI045
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CST056
                  0 0.000000e+00 0.000000e+00 3.918572e-05 0.000000e+00
##
##
   CSI066
                  0.000000e+00 0.000000e+00 1.916847e-05 0.000000e+00
##
          Otu05917
                        Otu05918
                                      Otu05919 Otu05920 Otu05921
                                                                       Otu05922
##
  CST002
                  0 0.000000e+00 2.724387e-05
                                                       0
                                                                 0 0.000000e+00
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0
##
                                                                 0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
  CSI023
                                                       0
                                                                 0 0.00000e+00
## CSI034
                  0 1.894908e-05 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
##
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                 0 0.000000e+00
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       Λ
                                                                 0 0.00000e+00
   CSI066
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 3.833694e-05
          Otu05923 Otu05924 Otu05925 Otu05926 Otu05927 Otu05928 Otu05929
##
##
   CSI002
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                                               0
                                                                  0
##
  CSI013
                  0
                            0
                                     0
                                                        0
                                                                            0
## CSI023
                  0
                                                                  0
                                                                            0
                            0
                                     0
                                               0
                                                        0
   CSI034
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
##
                  0
                            0
                                               0
                                                        0
##
  CSI045
                                     0
                                                                  0
                                                                            0
   CSI056
                  0
                            0
                                     0
                                                        0
                                                                            0
##
##
   CST066
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
##
          Otu05930 Otu05931
                                  Otu05932 Otu05933
                                                         Otu05934 Otu05935
##
  CSI002
                  Ω
                            0 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
## CSI013
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
## CSI023
                  0
                            0 0.00000e+00
                                                   0 0.00000e+00
                                                                           0
## CSI034
                  0
                            0 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
                                                                           0
## CST045
                  0
                            0 0.000000e+00
                                                   0 0.00000e+00
   CSI056
                  0
                            0 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
   CSI066
                  0
                            0 0.00000e+00
                                                   0 1.916847e-05
                                                                           0
##
                                           Otu05939
##
          Otu05936 Otu05937
                              Otu05938
                                                     Otu05940 Otu05941
                                     0 0.000000e+00
##
  CSI002
                  0
                            0
                                                             0
                                                                      0
## CSI013
                  0
                            0
                                     0 3.195807e-05
                                                             0
                                                                      0
## CSI023
                  0
                            0
                                     0 2.041025e-05
                                                             0
                                                                      0
##
   CSI034
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                      0
   CSI045
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
  CSI056
                                                             0
##
                  0
                            0
                                     0 0.00000e+00
                                                                      0
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                      0
##
   CSI066
               Otu05942 Otu05943 Otu05944 Otu05945 Otu05946
                                                                   Otu05947
##
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
  CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI023 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
                                0
                                         0
                                                   0
  CSI034 1.894908e-05
                                0
                                                             0.000000e+00
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 1.567429e-04
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
                            Otu05949 Otu05950 Otu05951 Otu05952 Otu05953
##
               Otu05948
   CSI002 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI013 6.391614e-05 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI023 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI034 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                           0
   CSI045 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI056 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI066 0.000000e+00 0.0000000000
                                              0
                                                       0
                                                                 0
##
                                                                           0
##
          Otu05954
                        Otu05955
                                      Otu05956 Otu05957 Otu05958 Otu05959
                  0 0.000000000 0.000000e+00
## CSI002
                                                       0
                                                                 0
                                                                           0
## CSI013
                  0 0.000000000 0.000000e+00
                                                       0
                                                                 0
                                                                           0
```

```
## CSI023
                  0 0.000000000 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CST034
                  0 0.0000000000 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
##
   CSI045
                  0 0.0000000000 0.000000e+00
                                                        0
                                                                  0
                                                                            0
                    0.0001175572 0.000000e+00
  CSI056
                                                        Λ
                                                                  0
                                                                            0
##
##
   CST066
                    0.000000000 3.833694e-05
                                                        0
                                                                  0
                                                                            0
                    Otu05961 Otu05962 Otu05963
##
          Otu05960
                                                      Otu05964
                                                                    Otu05965
                                               0 0.000000e+00 0.000000e+00
##
  CSI002
                  0
                            0
                                      0
## CSI013
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
##
   CSI023
                  0
                            0
                                      0
                                                 0.000000e+00 0.000000e+00
                            0
##
   CSI034
                  0
                                      0
                                                 0.000000e+00 0.000000e+00
   CSI045
                  0
                            0
                                      0
                                                 0.000000e+00 0.000000e+00
                  0
                            0
                                      0
                                                  0.000000e+00 0.000000e+00
##
   CSI056
##
   CSI066
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
          Otu05966
                    0tu05967
##
                              Otu05968 Otu05969
                                                  Otu05970 Otu05971 Otu05972
##
  CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI023
                  0
                                      0
   CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI045
                  0
                            0
                                               0
                                                         0
                                                                   0
                                                                             0
##
                                      0
##
   CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CST066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
          Otu05973
                    Otu05974
                                  Otu05975 Otu05976
                                                          Otu05977 Otu05978
##
## CSI002
                  0
                            0.0000000000
                                                    0.000000e+00
                                                                            0
##
   CSI013
                  0
                            0
                              0.000000000
                                                    0 0.00000e+00
                                                                            0
                              0.000000000
                                                                            0
##
  CSI023
                  0
                                                    0 0.00000e+00
   CSI034
                  0
                            0
                              0.000000000
                                                    0
                                                     1.894908e-05
                                                                            0
   CSI045
                  0
                              0.000000000
                                                     0.000000e+00
                                                                            0
##
                            0
                                                    0
##
   CSI056
                  0
                            0
                              0.000000000
                                                    0 0.00000e+00
                                                                            0
   CSI066
                  0
                            0 0.0000000000
                                                    0 0.00000e+00
                                                                            0
##
##
          Otu05979
                         Otu05980 Otu05981
                                                 0tu05982
                                                               Otu05983
##
   CSI002
                  0
                    2.724387e-05
                                          0 0.000000000 0.000000e+00
##
   CSI013
                  0
                    0.000000e+00
                                          0 0.000000000 0.000000e+00
##
   CSI023
                    0.000000e+00
                                          0 0.000000000 0.000000e+00
                                          0 0.000000000 0.000000e+00
##
   CSI034
                  0 0.000000e+00
   CSI045
                    0.000000e+00
                                            0.0000000000 1.959056e-04
                  0 0.000000e+00
                                          0 0.000000000 0.000000e+00
##
   CST056
##
   CSI066
                  0 0.000000e+00
                                          0 0.000000000 0.000000e+00
##
               Otu05984 Otu05985 Otu05986
                                            Otu05987
                                                          Otu05988
                                                                      0t_{11}05989
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.00000000
   CSI013 0.000000e+00
                                0
                                          0
                                                    0 3.195807e-05 0.00000000
##
                                                      0.000000e+00 0.00000000
   CSI023 0.000000e+00
                                0
                                          0
   CSI034 0.000000e+00
                                0
                                          0
                                                      0.000000e+00 0.00000000
   CSI045 0.000000e+00
                                0
                                          0
                                                      0.000000e+00 0.00000000
                                0
                                          0
   CSI056 0.000000e+00
                                                      0.000000e+00 0.00013715
##
   CSI066 0.000000e+00
                                0
                                                    0 0.000000e+00 0.00000000
           Otu05990 Otu05991 Otu05992
##
                                            Otu05993
                                                      Otu05994 Otu05995
##
  CSI002
                  0
                            0
                                      0 6.810968e-05
                                                              0
                                                                       0
   CSI013
                                                                       0
##
                  0
                            0
                                      0 0.00000e+00
                                                              0
##
   CSI023
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
##
   CSI034
                  0
                            0
                                        1.894908e-05
                                                              0
                                                                       0
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                       0
##
   CSI045
##
  CSI056
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
##
  CSI066
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
##
               Otu05996
                             Otu05997 Otu05998 Otu05999 Otu06000 Otu06001
```

```
## CSI002 0.000000e+00 1.362194e-05
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.000000e+00
                                                                  0
                                               0
                                                        0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI034 0.000000e+00 9.474542e-05
                                               0
                                                        Λ
                                                                  0
                                                                            0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                                  0
                                                        0
                                                                            0
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                  0
           Otu06002 Otu06003 Otu06004 Otu06005 Otu06006 Otu06007
##
                                                                     Otu06008
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
                            0
                                                0
                                                          0
                                                                   0
##
  CSI013
                  0
                                      0
                                                                             0
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
                  0
                            0
                                                0
                                                          0
                                                                   0
                                                                             0
##
  CSI034
                                      0
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
                            0
                                                                   0
##
   CSI056
                  0
                                      0
                                                0
                                                          0
                                                                             0
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
##
           Otu06009
                    Otu06010
                              Otu06011
                                            Otu06012 Otu06013
                                                                     Otu06014
  CSI002
##
                  0
                            0
                                      0 0.000000e+00
                                                              0 6.810968e-05
##
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.00000e+00
  CSI023
                            0
                                                              0 0.00000e+00
##
                  0
                                        0.000000e+00
##
   CSI034
                  0
                            0
                                        0.000000e+00
                                                                3.789817e-05
##
  CSI045
                  0
                            0
                                        0.000000e+00
                                                              0 0.000000e+00
   CSI056
                  0
                            0
                                      0 0.000000e+00
                                                                0.000000e+00
##
                  0
                            0
                                                              0 0.000000e+00
##
  CSI066
                                      0 0.000000e+00
                                   Otu06017 Otu06018 Otu06019
##
          Otu06015
                    Otu06016
                                                                Ot.1106020
## CSI002
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
  CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
  CSI023
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
##
                            0
                                                    0
                                                              0
##
   CSI034
                  0
                            0
                              0.000000e+00
                                                                        0
                                                    0
                                                              0
                  0
                            0 0.000000e+00
                                                                        0
##
   CSI045
##
   CSI056
                  0
                            0 5.877858e-05
                                                    0
                                                              0
                                                                        0
##
   CSI066
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
##
               Otu06021
                            Otu06022 Otu06023
                                                    Otu06024 Otu06025 Otu06026
   CSI002 2.724387e-05 0.000000000
                                              0 0.0000000000
                                                                      0
                                                                               0
   CSI013 6.391614e-05 0.000000000
                                                                      0
                                                                               0
                                              0 0.0000000000
   CSI023 0.000000e+00 0.000000000
                                               0.000000000
                                                                      0
                                                                               0
   CSI034 0.000000e+00 0.000227389
                                                                      0
                                                                               0
                                               0.0000000000
   CSI045 0.000000e+00 0.000000000
                                               0.0000000000
                                                                      0
                                                                               0
   CSI056 0.000000e+00 0.000000000
                                              0 0.000000000
                                                                      0
                                                                               0
   CSI066 0.000000e+00 0.000000000
                                              0 0.0000000000
                                                                      0
##
                                                                               0
##
           Otu06027 Otu06028 Otu06029 Otu06030
                                                      Ot:1106031
                                                                     Ot:1106032
## CSI002
                            0
                                      0
                                                0 2.724387e-05 0.000000e+00
## CSI013
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CSI023
                  0
                            0
                                      0
                                                0 2.041025e-05 0.000000e+00
                            0
##
   CSI034
                  0
                                      0
                                                0 7.579634e-05 0.000000e+00
                            0
  CSI045
                  0
                                      0
                                                0 0.000000e+00 0.000000e+00
## CSI056
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
                                      0
##
   CSI066
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
           Otu06033 Otu06034
                                   Otu06035
                                                 Otu06036 Otu06037
                                                                         Otu06038
                                                                  0 0.000000e+00
## CSI002
                  0
                            0 0.000000e+00 0.000000e+00
##
   CSI013
                  0
                              6.391614e-05 0.000000e+00
                                                                  0 0.00000e+00
                  0
                              0.000000e+00 0.000000e+00
##
  CSI023
                                                                  0 0.00000e+00
## CSI034
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0 0.00000e+00
## CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0 3.265093e-05
## CSI056
                  0
                            0 5.877858e-05 0.000000e+00
                                                                  0 0.00000e+00
```

```
## CSI066
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
##
               Otu06039 Otu06040 Otu06041 Otu06042 Otu06043
                                                                   Ot.1106044
                                                            0 0.00000e+00
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
   CSI013 0.000000e+00
                                0
                                                   0
                                                            0 3.195807e-05
                                         0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                            0 0.00000e+00
                                0
                                         0
                                                   0
##
  CSI034 1.894908e-05
                                                             0 0.00000e+00
   CSI045 0.000000e+00
                                         0
                                                   0
                                0
                                                             0 0.00000e+00
                                         0
  CSI056 0.000000e+00
                                0
                                                   0
                                                            0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
          Otu06045 Otu06046 Otu06047
##
                                           Otu06048
                                                         Otu06049 Otu06050
## CSI002
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI013
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                  0
##
  CSI023
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                                     0 1.894908e-05 0.000000e+00
##
  CSI034
                  0
                           0
                                                                           0
  CSI045
                  0
                           0
                                     0 0.000000e+00 3.265093e-05
                                                                           0
##
##
   CSI056
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                           0
                                     0 0.000000e+00 0.000000e+00
##
  CSI066
                  0
                                                                           0
##
               Otu06051 Otu06052 Otu06053
                                                Otu06054
                                                              Otu06055 Otu06056
                                         0 0.000000e+00 1.362194e-05
##
  CSI002 0.000000e+00
                                0
                                                                               0
  CSI013 3.195807e-05
                                0
                                         0 3.195807e-05 0.000000e+00
                                                                               0
##
   CSI023 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
   CSI034 0.000000e+00
                                0
                                         0 5.684725e-05 0.000000e+00
                                                                               0
  CSI045 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
                                         0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                0
                                                                               0
##
   CSI066 0.000000e+00
                                0
                                         0 0.000000e+00 0.000000e+00
                                                                               0
##
               Otu06057
                            Otu06058 Otu06059 Otu06060 Otu06061 Otu06062
##
  CSI002 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI013 0.000000e+00 6.391614e-05
                                              0
                                                       0
                                                                           0
                                                                 0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                           0
   CSI034 0.000000e+00 5.684725e-05
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
          Otu06063 Otu06064 Otu06065 Otu06066 Otu06067 Otu06068
##
                                                                    Otu06069
  CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
##
                                                                            0
  CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
##
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI034
                  0
                           0
                                               0
                                                        0
                                                                  0
                                                                            0
                                     0
                  0
                           0
                                               0
                                                        0
##
   CSI045
                                                                  0
                                                                            0
                                               0
                                                        0
                                                                  0
##
  CSI056
                  \cap
                           0
                                     0
                                                                            0
                                                        0
##
   CSI066
                  0
                           0
                                                                  0
                                                                            0
          Otu06070
                        Otu06071 Otu06072
                                                Otu06073 Otu06074
##
                                                                       0t_{11}06075
##
   CSI002
                  0 0.000000000
                                         0 1.362194e-05
                                                                 0 2.724387e-05
  CSI013
                  0 0.000000000
                                         0 0.000000e+00
                                                                 0 0.000000e+00
##
  CSI023
                  0.000000000
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
  CSI034
                  0 0.000000000
                                         0 1.894908e-05
                                                                 0 3.789817e-05
##
   CSI045
                   0.000000000
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
   CSI056
                    0.000000000
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
   CST066
                  0
                   0.0000000000
                                         0 0.000000e+00
                                                                 0 0.000000e+00
##
          Otu06076
                        Otu06077 Otu06078 Otu06079
                                                         Otu06080 Otu06081
  CSI002
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                                                           0
##
## CSI013
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
## CSI034
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
```

```
## CSI045
                  0 0.00000e+00
                                         0
                                                   0 0.00000e+00
                                                                          0
  CST056
                  0 0.000000e+00
                                         0
                                                    0.000000e+00
                                                                          0
##
                                                   0 0.00000e+00
##
   CSI066
                  0 0.000000e+00
                                         0
                                                                          0
##
              Otu06082 Otu06083 Otu06084
                                              Otu06085
                                                            Otu06086 Otu06087
##
   CSI002 0.000000e+00
                               0
                                         0 0.00000e+00 0.0000000000
                                                                             0
                               0
                                         0 0.00000e+00 0.0000000000
                                                                             0
##
   CSI013 3.195807e-05
                                         0 0.00000e+00 0.0000000000
                                                                             0
   CSI023 0.000000e+00
                               0
  CSI034 0.000000e+00
                               0
                                         0 0.00000e+00 0.000000000
                                                                             0
   CSI045 0.000000e+00
                               0
                                         0 0.00000e+00 0.0001632546
                                                                             0
                               0
                                                                             0
   CSI056 0.000000e+00
                                         0 9.79643e-05 0.0000000000
   CSI066 0.000000e+00
                               0
                                         0 0.00000e+00 0.0000000000
                                                                             0
          Otu06088 Otu06089 Otu06090 Otu06091
##
                                                     Otu06092 Otu06093
##
   CSI002
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                           0
                                              0 0.00000e+00
##
  CSI013
                  0
                                     0
                                                                      0
  CSI023
                  0
                           0
                                                                      0
##
                                     0
                                              0 0.00000e+00
   CSI034
                  0
                           0
                                     0
                                              0 0.00000e+00
                                                                      0
##
                           0
                                                                      0
##
   CSI045
                  0
                                     0
                                              0 0.00000e+00
   CSI056
                           0
                                              0 0.00000e+00
                                                                      0
##
                           0
##
   CST066
                  0
                                     0
                                              0 0.00000e+00
                                                                      0
##
              Otu06094 Otu06095 Otu06096
                                               Otu06097 Otu06098 Otu06099
##
   CSI002 0.000000e+00
                               0
                                         0 0.000000000
                                                                0
                                                                          0
   CSI013 0.000000e+00
                               0
                                         0 0.000000000
                                                                0
                                                                          0
                                                                0
  CSI023 0.000000e+00
                               0
                                         0 0.000000000
                                                                          0
                                                                0
   CSI034 1.894908e-05
                               0
                                         0 0.0001326436
                                                                          0
                                                                0
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0.0000000000
   CSI056 0.000000e+00
                               0
                                         0
                                          0.000000000
                                                                0
                                                                          0
   CSI066 0.000000e+00
                               0
                                           0.000000000
                                                                0
                                                                          0
##
                                         0
##
              Otu06100 Otu06101 Otu06102
                                               Otu06103 Otu06104
                                                                       Otu06105
   CSI002 0.000000e+00
##
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI013 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 3.195807e-05
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI034 0.000000e+00
                               0
                                         0 1.894908e-05
                                                                0 0.000000e+00
   CSI045 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI056 3.918572e-05
##
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI066 0.000000e+00
                               0
                                         0 1.916847e-05
                                                                0 0.00000e+00
##
                        Otu06107 Otu06108 Otu06109 Otu06110 Otu06111
##
          Ot:1106106
## CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                  0 0.000000e+00
  CSI023
                                         0
                                                   0
                                                            0
                                                                      0
##
                                         0
                                                   0
                                                            Λ
                                                                      0
##
  CSI034
                  0.000000e+00
                                         0
                                                   0
                                                            0
   CSI045
                  0 3.265093e-05
                                                                      0
                                         0
                                                   0
                                                            0
                                                                      0
##
   CST056
                  0 3.918572e-05
##
   CSI066
                  0 0.00000e+00
                                         0
                                                            Ω
                                                                      0
##
              Otu06112 Otu06113
                                      Otu06114
                                                    Otu06115 Otu06116
   CSI002 1.362194e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI034 1.894908e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
##
   CSI056 0.000000e+00
                               0 5.877858e-05 0.000000e+00
                                                                     0
   CSI066 0.000000e+00
                               0 0.000000e+00 1.916847e-05
                                                                     0
##
##
              Otu06117
                            Otu06118
                                          Otu06119 Otu06120 Otu06121
## CSI002 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
## CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
```

```
## CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
   CSI034 0.000000e+00 1.894908e-05 0.000000e+00
                                                            0
                                                                      0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                                      0
   CSI056 0.000000e+00 0.000000e+00 5.877858e-05
                                                            n
                                                                      0
##
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                      0
##
               Otu06122 Otu06123 Otu06124 Otu06125 Otu06126 Otu06127
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
##
  CSI013 3.195807e-05
                                0
                                          0
                                                    0
                                                             0
                                                                       0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                0
                                          0
   CSI034 0.000000e+00
                                                    0
                                                             0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                0
                                          0
                                                    0
                                                             0
                                                                       0
   CSI056 0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                       Otu06130 Otu06131 Otu06132
##
               Otu06128 Otu06129
                                                                        Otu06133
   CSI002 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0 0.000000e+00
##
   CSI013 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 9.587421e-05
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI034 3.789817e-05
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
##
   CSI066 0.000000e+00
                                0 0.00000e+00
                                                        Λ
                                                                  0 0.000000e+00
           Otu06134 Otu06135
                                  Otu06136
                                                Otu06137 Otu06138 Otu06139
##
## CSI002
                                                                  0
                  \cap
                            0 1.362194e-05 2.724387e-05
                                                                            0
  CSI013
                            0 0.000000e+00 0.000000e+00
                                                                  0
##
                  0
                                                                            0
                                                                  0
## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                            0
  CSI034
                  0
                            0 5.684725e-05 1.136945e-04
                                                                  0
                                                                            0
  CSI045
                  0
                             0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
                            0 0.000000e+00 0.000000e+00
                                                                  0
##
   CSI056
                  0
                                                                            0
   CSI066
                                                                  0
                  0
                            0 0.000000e+00 0.000000e+00
                                                                            0
##
##
          Otu06140
                         Otu06141 Otu06142 Otu06143 Otu06144 Otu06145 Otu06146
## CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI013
                  0
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI023
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI034
                  0 0.000000e+00
   CSI045
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
##
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CST056
                  0 0.000000e+00
##
   CSI066
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
          Otu06147
                         Otu06148 Otu06149 Otu06150
                                                          Otu06151 Otu06152
## CSI002
                  0 0.000000e+00
                                          0
                                                     0.000000000
                                                                            0
                  0 0.000000e+00
  CSI013
                                          0
                                                                            0
##
                                                     0.0003515388
  CSI023
                                                                            0
                  0 0.000000e+00
                                          0
                                                     0.000000000
  CSI034
                    0.000000e+00
                                          0
                                                     0.000000000
                                                                            0
##
                  0
##
   CSI045
                  0 0.000000e+00
                                          0
                                                     0.000000000
                                                                            0
##
   CSI056
                    1.959286e-05
                                          0
                                                     0.000000000
                                                                            0
##
   CSI066
                  0 0.000000e+00
                                                    0 0.000000000
                    Otu06154 Otu06155
                                            Otu06156 Otu06157 Otu06158
##
           Otu06153
## CSI002
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
##
   CSI013
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
##
   CSI023
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
##
   CSI034
                  0
                            0
                                        3.789817e-05
                                                             0
                                                                       0
                  0
                            0
                                                             0
                                                                       0
##
   CSI045
                                       0.000000e+00
## CSI056
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                      0 0.000000e+00
## CSI066
                  0
                            0
                                                             0
                                                                       0
##
               Otu06159
                             Otu06160 Otu06161 Otu06162
                                                              Otu06163 Otu06164
```

```
## CSI002 0.000000e+00 0.000000e+00
                                                        0 1.362194e-05
  CSI013 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                              0
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0 2.041025e-05
  CSI034 0.000000e+00 0.000000e+00
                                              0
                                                        0 1.894908e-05
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0 6.530186e-05
   CSI056 0.000000e+00 0.000000e+00
                                              Λ
                                                        0 0.000000e+00
                                                                                0
   CSI066 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
           Otu06165 Otu06166
                                  Otu06167 Otu06168
                                                          Ot:1106169
                                                                        Ot:1106170
## CSI002
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI013
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI023
                  0
                            0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI034
                  0
                                                   0 0.000000e+00 0.000000e+00
                            0 1.894908e-05
##
  CSI045
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI056
                                                   0 1.959286e-05 0.000000e+00
##
                  0
                            0 0.000000e+00
  CSI066
                            0 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
##
                  0
##
               Otu06171 Otu06172 Otu06173 Otu06174 Otu06175 Otu06176 Otu06177
                                                             0
##
  CSI002 2.724387e-05
                                0
                                         0
                                                   0
                                                                       0
                                                                                 0
   CSI013 3.195807e-05
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI023 0.000000e+00
                                                             0
                                                                                 0
                                0
                                         0
                                                   0
                                                                       0
## CSI034 1.894908e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             Λ
                                                                       0
                                                                                 O
   CSI056 0.000000e+00
                                          0
                                                             0
                                                                                 0
## CSI066 0.000000e+00
                                                             Λ
                                0
                                          0
                                                                       0
                                                                                 0
                             Otu06179 Otu06180
##
               Otu06178
                                                    Otu06181 Otu06182 Otu06183
## CSI002 4.086581e-05 1.362194e-05
                                              0 0.000000e+00
                                                                      0
   CSI013 0.000000e+00 3.195807e-05
                                              0 3.195807e-05
                                                                      0
                                                                                0
  CSI023 0.000000e+00 0.000000e+00
                                              0 2.041025e-05
                                                                      0
                                                                                0
   CSI034 0.000000e+00 0.000000e+00
                                              0 1.894908e-05
                                                                      0
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI056 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
##
          Otu06184 Otu06185
                                  Otu06186 Otu06187 Otu06188 Otu06189 Otu06190
## CSI002
                  0
                            0 1.362194e-05
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI013
                            0 3.195807e-05
                                                                                 0
                  0
                                                   0
                                                             0
                                                                       0
## CSI023
                  0
                            0 0.00000e+00
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                                   0
                                                             0
                                                                                 0
## CST034
                  0
                            0 9.474542e-05
                                                                       0
## CSI045
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                                 0
## CSI056
                  0
                            0 0.000000e+00
                                                   0
                                                             Λ
                                                                       0
                                                                                 Λ
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                       0
##
  CST066
                                                                                 0
           Otu06191 Otu06192 Otu06193
                                                          Otu06195 Otu06196
##
                                            0t.1106194
                            0
## CSI002
                  0
                                     0 0.000000e+00 0.000000e+00
## CSI013
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI023
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                            0
## CSI034
                  0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI045
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI056
                  0
                            0
                                     0 0.000000e+00 1.959286e-05
                                                                           0
##
  CSI066
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
           Otu06197
                    Otu06198 Otu06199 Otu06200 Otu06201 Otu06202 Otu06203
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
```

```
## CSI066
                  0
                                                   0
##
          Ot:1106204
                        Ot:1106205
                                      Otu06206 Otu06207 Otu06208 Otu06209
## CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                0
## CSI013
                  0 0.000000e+00 3.195807e-05
                                                       0
                                                                 0
                                                                          0
## CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                          0
                  0 5.684725e-05 0.000000e+00
                                                                Ω
## CSI034
                                                       0
                                                                          0
                  0 0.000000e+00 0.000000e+00
## CSI045
                                                       0
                  0 0.000000e+00 0.000000e+00
## CSI056
                                                       0
                                                                0
## CSI066
                  0 0.000000e+00 0.000000e+00
                                                       0
                        Otu06211 Otu06212 Otu06213 Otu06214 Otu06215 Otu06216
##
          Otu06210
## CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                         0
## CSI034
                  0 9.474542e-05
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                               0
                                                                      0
## CSI056
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                  0 0.000000e+00
                                                   0
                                                            0
##
  CSI066
                                                                      0
          Otu06217 Otu06218 Otu06219
                                           Otu06220 Otu06221 Otu06222
## CST002
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      0
## CSI013
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
## CSI023
                  0
                           0
                                     0 0.00000e+00
                                                            Λ
                                                                      0
## CSI034
                  0
                           0
                                     0 0.000000e+00
                                                            0
## CSI045
                  0
                           0
                                                            Λ
                                     0 0.00000e+00
                  0
                           0
                                                            0
## CSI056
                                     0 1.959286e-05
                           0
## CSI066
                  0
                                     0 3.833694e-05
              Otu06223 Otu06224 Otu06225
                                               Otu06226
                                                             Otu06227 Otu06228
## CSI002 0.000000e+00
                               0
                                         0 0.000000e+00 0.0000000000
                                                                              0
                               0
                                         0 0.000000e+00 0.0000000000
## CSI013 0.000000e+00
                                                                              0
## CSI023 0.000000e+00
                               0
                                         0 2.041025e-05 0.0000000000
                                                                              0
## CSI034 1.894908e-05
                               0
                                         0 3.789817e-05 0.0001136945
                                                                              0
## CSI045 0.000000e+00
                               0
                                         0 0.000000e+00 0.0000000000
   CSI056 0.000000e+00
                                         0 0.000000e+00 0.0000000000
   CSI066 0.000000e+00
                                         0 0.000000e+00 0.0000000000
          Otu06229 Otu06230
                                 Otu06231 Otu06232 Otu06233 Otu06234
##
## CSI002
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
## CSI013
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
## CSI023
                  0
                           0 0.000000e+00
                                                   0
                                                            0
## CSI034
                  Λ
                           0 0.000000e+00
                                                   0
                                                            Λ
                                                                      0
                  0
                           0 0.000000e+00
                                                   0
                                                            0
## CSI045
                  Ω
                           0 0.000000e+00
                                                   Ω
                                                            Λ
## CSI056
   CST066
                  0
                           0 0.00000e+00
##
              Otu06235 Otu06236 Otu06237 Otu06238 Otu06239 Otu06240
## CSI002 4.086581e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                   0
                                                            0
## CSI013 3.195807e-05
                               0
                                         0
                                                                      0
## CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
## CSI034 1.894908e-05
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
   CSI056 0.000000e+00
                                         0
                                                   0
                                                            0
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
              Otu06241 Otu06242 Otu06243 Otu06244 Otu06245
                                                              Otu06246 Otu06247
## CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
```

```
## CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
   CSI056 0.000000e+00
                                         0
                                                   0
                                                                      0
                                                                                0
                                0
                                                             0
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
               Otu06248 Otu06249 Otu06250 Otu06251 Otu06252 Otu06253 Otu06254
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI013 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                0
                                         0
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034 1.894908e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI045 9.795279e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                O
                                         0
                                                   Λ
   CSI056 0.000000e+00
                                0
                                                             0
                                                                      Λ
                                                                                0
   CSI066 0.000000e+00
                                         0
                                                             0
                                                                                0
          Otu06255 Otu06256 Otu06257 Otu06258
##
                                                     Otu06259
                                                               Otu06260 Otu06261
##
  CSI002
                  0
                            0
                                     0
                                               0 2.724387e-05
                                                                      0
                                                                                0
## CSI013
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
## CSI023
                                               0 0.000000e+00
                                                                                0
                  0
                            0
                                     0
                                                                      0
   CSI034
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
##
                            0
                                                                                0
##
  CSI045
                  0
                                     0
                                               0 0.00000e+00
                                                                      0
   CSI056
                            0
                                     0
                                               0 0.00000e+00
                                                                                0
##
##
   CST066
                  0
                            0
                                     0
                                               0.000000e+00
                                                                      0
                                                                                0
##
               Otu06262 Otu06263
                                      Otu06264 Otu06265 Otu06266 Otu06267
##
  CSI002 0.000000e+00
                                0 0.00000e+00
                                                       Λ
                                                                 0
                                                                           0
## CSI013 6.391614e-05
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI023 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                           0
                                                                 0
  CSI034 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                           0
                                                                 0
  CSI045 0.000000e+00
                                0 0.00000e+00
                                                       Ω
                                                                           0
   CSI056 3.918572e-05
                                0 0.00000e+00
                                                       Λ
                                                                 0
                                                                           0
   CSI066 5.750542e-05
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           \cap
##
##
               Otu06268
                             Otu06269 Otu06270
                                                    Otu06271 Otu06272 Otu06273
  CSI002 0.000000e+00 0.000000e+00
##
                                              0 5.448775e-05
                                                                      0
                                                                               0
   CSI013 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                               0
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                               0
   CSI034 0.000000e+00 0.000000e+00
                                              0.0.000000e+00
                                                                      0
                                                                               0
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                               0
   CSI056 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                               0
   CSI066 1.916847e-05 0.000000e+00
                                              0 0.00000e+00
                                                                      0
##
              Otu06274 Otu06275 Otu06276 Otu06277 Otu06278 Otu06279
##
## CSI002 0.0000000000
                                0
                                         0
                                                   0
                                                             0
## CSI013 0.0000000000
                                0
                                         0
                                                   0
                                                             Λ
                                                                      0
  CSI023 0.0000000000
                                         0
                                0
                                                   0
                                                             0
                                                                      0
  CSI034 0.0000000000
                                         0
                                0
                                                   0
                                                             \cap
                                                                      0
   CSI045 0.0002612074
                                0
                                         0
                                                   0
                                                             0
  CSI056 0.0000000000
                                         0
                                                   0
                                                             0
                                                                      0
                                0
##
   CSI066 0.0000000000
                                0
                                                   0
                                                             0
                                                                      0
##
                             Otu06281
                                          Otu06282
                                                         Otu06283 Otu06284
               Otu06280
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00 1.362194e-05
   CSI013 0.000000e+00 3.195807e-05 0.000000e+00 0.000000e+00
                                                                          0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI034 0.000000e+00 0.000000e+00 0.000000e+00 1.894908e-05
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 1.916847e-05
                                                                          0
##
          Otu06285 Otu06286 Otu06287 Otu06288 Otu06289 Otu06290 Otu06291
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
```

```
## CSI023
                  0
                            0
                                                                              0
  CST034
                            0
                                                          0
##
                  0
                                      0
                                                0
                                                                    0
                                                                              0
  CSI045
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
##
   CST066
                  0
                            0
                                                                    0
                                                                              0
           Otu06292 Otu06293
                                                 Otu06295 Otu06296 Otu06297
##
                                   Otu06294
## CSI002
                  0
                            0 1.362194e-05 0.000000e+00
                                                                   0
                                                                             0
## CSI013
                  0
                            0 0.000000e+00 3.195807e-05
                                                                   0
                                                                             0
##
   CSI023
                  0
                            Ω
                              0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                                                                   Λ
##
  CSI034
                  0
                              0.000000e+00 1.894908e-05
                                                                             0
   CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                                                                   0
                  0
                            0 0.000000e+00 0.000000e+00
                                                                             0
##
   CSI056
##
   CSI066
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                         Otu06299 Otu06300 Otu06301 Otu06302 Otu06303
##
           Otu06298
## CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
   CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                          0
                                                              0
##
   CSI023
                  0 0.000000e+00
                                                    0
                                                                        0
   CSI034
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                          0
                                                    0
                                                              0
##
   CSI045
                  0 0.00000e+00
                                                                        0
##
   CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                               0
                                                                        0
##
   CST066
                  0 0.000000e+00
                                          0
                                                    0
                                                                        0
##
               Otu06304
                             Otu06305 Otu06306 Otu06307
                                                               Otu06308 Otu06309
   CSI002 0.000000e+00 0.000000e+00
                                               0
##
                                                         0 0.000000e+00
                                                                                 0
   CSI013 9.587421e-05 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI034 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                                                 0
                                                         0 6.530186e-05
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                         0 0.00000e+00
                                                                                 0
                                               0
   CSI066 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
                                                                                 0
##
##
               Otu06310 Otu06311 Otu06312 Otu06313 Otu06314 Otu06315 Otu06316
##
   CSI002 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI023 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034 3.789817e-05
                                 0
                                          0
                                                    0
                                                              0
                                                                                  0
                                                                        0
   CSI045 0.000000e+00
                                 0
                                          0
                                                    0
                                                               0
                                                                        0
                                                                                  0
   CSI056 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI066 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               Otu06317 Otu06318
                                       Otu06319 Otu06320 Otu06321 Otu06322
   CSI002 1.362194e-05
                                 0 0.000000e+00
                                                         0
                                                                   0
                                                                   0
                                                                             0
##
   CSI013 3.195807e-05
                                 0 3.195807e-05
                                                         0
   CSI023 0.000000e+00
                                                                   0
                                                                             0
                                 0 0.00000e+00
                                                         0
   CSI034 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI045 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                                         Λ
                                                                   0
   CSI056 0.000000e+00
                                 0 0.000000e+00
                                                                             Λ
   CSI066 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
           Otu06323 Otu06324 Otu06325 Otu06326 Otu06327
##
                                                                Otu06328 Otu06329
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 1.362194e-05
                                                                                  0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                            1.326436e-04
                                                                                  0
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
   CSI045
##
  CSI056
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0.000000e+00
                                                                                  0
##
               Otu06330 Otu06331
                                       Otu06332 Otu06333 Otu06334
                                                                         Otu06335
```

```
## CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
  CSI013 0.000000e+00
                                                        0
                                0 0.00000e+00
                                                                  0 9.587421e-05
                                                                  0 0.000000e+00
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
   CSI034 7.579634e-05
                                0 0.00000e+00
                                                        0
                                                                  0 3.789817e-05
   CSI045 0.000000e+00
                                0 3.265093e-05
                                                        0
                                                                  0 0.000000e+00
   CSI056 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI066 0.000000e+00
                                0 0.00000e+00
                                                                  0 0.00000e+00
           Otu06336 Otu06337 Otu06338
                                            Otu06339 Otu06340 Otu06341 Otu06342
##
## CSI002
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 O
                            0
                                                             0
                                                                       0
                                                                                 0
##
  CSI013
                  0
                                      0 0.000000e+00
  CSI023
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
                  0
                            0
                                                             0
                                                                       0
##
  CSI034
                                        3.789817e-05
##
   CSI045
                  0
                            0
                                       0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                            0
                                       0.000000e+00
                                                              0
                                                                                 0
##
   CSI056
                  0
                                                                       0
   CSI066
                  0
                            0
                                        0.000000e+00
                                                             0
                                                                       0
                                                                                 0
##
                                      0
##
          Otu06343
                    Otu06344
                              Otu06345
                                            Otu06346 Otu06347
                                                                    Otu06348
  CSI002
                            0
##
                  0
                                      0 0.000000e+00
                                                             0 0.00000e+00
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                             0 1.597904e-04
##
  CSI023
                  0
                            0
                                                             0 0.00000e+00
##
                                       0.000000e+00
##
   CSI034
                  0
                            0
                                        0.000000e+00
                                                               0.000000e+00
                                       0.000000e+00
##
  CSI045
                  Λ
                            0
                                                             0 3.265093e-05
   CSI056
                  0
                            0
                                       0.000000e+00
                                                             0 0.000000e+00
##
  CSI066
                  0
                            0
##
                                      0 1.916847e-05
                                                             0 0.00000e+00
          Otu06349
                    Otu06350
                              Otu06351
##
                                        Otu06352 Otu06353
                                                                Otu06354 Otu06355
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
  CSI013
                  0
                            0
                                      0
                                               0
                                                         0 0.000000e+00
                                                                                 0
  CSI023
                  0
                            0
                                      0
                                               0
                                                         0 0.000000e+00
                                                                                 0
##
                  0
                            0
                                               0
                                                                                 0
##
   CSI034
                                      0
                                                         0 0.00000e+00
                            0
                                               0
                                                                                 0
   CSI045
                  0
                                      0
##
                                                         0 0.00000e+00
##
  CSI056
                  0
                            0
                                      0
                                               0
                                                         0 3.918572e-05
                                                                                 0
##
   CSI066
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
##
          Otu06356
                         Otu06357 Otu06358 Otu06359 Otu06360 Otu06361 Otu06362
##
  CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI023
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CSI034
                  0 0.00000e+00
##
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
  CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                             Λ
                                                                       0
                                                                                 0
##
                  0 0.000000e+00
                                          0
                                                             0
                                                                       0
                                                                                 0
##
   CSI066
                                                    0
                                       Otu06365
##
               Otu06363 Otu06364
                                                     Ot:1106366
                                                                   Ot:1106367
   CSI002 0.000000e+00
                                0 1.362194e-05 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI034 3.789817e-05
                                0 1.894908e-05 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                0 0.000000e+00 6.530186e-05 0.000000e+00
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
           Otu06368 Otu06369 Otu06370 Otu06371
##
                                                      Otu06372
                                                                    Otu06373
## CSI002
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
##
  CSI013
                  0
                            0
                                      0
                                               0 0.000000e+00 0.000000e+00
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
##
  CSI023
                            0
## CSI034
                  0
                                     0
                                               0 0.000000e+00 0.000000e+00
## CSI045
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
## CSI056
                  0
                            0
                                     0
                                               0 0.000000e+00 0.000000e+00
```

```
## CSI066
                  0
                            0
                                     0
                                               0 0.000000e+00 1.916847e-05
##
          Otu06374 Otu06375 Otu06376 Otu06377 Otu06378 Otu06379
                                                                         Ot:1106380
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.0001089755
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.0000000000
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.0000000000
                  0
                            0
                                               0
                                                         0
## CSI034
                                     0
                                                                   0 0.000000000
                            0
                                     0
                                               0
## CSI045
                  0
                                                                   0 0.000000000
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.000000000
## CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.000000000
                             Otu06382 Otu06383 Otu06384 Otu06385 Otu06386
##
               Otu06381
## CSI002 0.000000e+00 1.362194e-05
                                              0
                                                        0
                                                                  0
## CSI013 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
## CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
## CSI034 1.894908e-05 3.789817e-05
                                              0
                                                                  0
                                                        0
                                                                            0
  CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
  CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
##
               Otu06387 Otu06388 Otu06389 Otu06390 Otu06391 Otu06392
## CSI002 2.724387e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
## CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
## CSI023 0.000000e+00
                                0
                                          0
                                                   Ω
                                                             0
                                                                       0
## CSI034 3.789817e-05
                                0
                                          0
                                                    0
                                                             0
## CSI045 0.000000e+00
                                          0
                                                    0
                                0
                                                             0
                                                                       0
## CSI056 0.000000e+00
                                          0
                                0
                                                    0
                                                             0
## CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
               Otu06393 Otu06394 Otu06395 Otu06396 Otu06397
                                                                    Otu06398
## CSI002 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
                                          0
                                                   0
## CSI013 0.000000e+00
                                0
                                                             0 0.00000e+00
## CSI023 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
## CSI034 7.579634e-05
                                0
                                          0
                                                   0
                                                             0 0.00000e+00
## CSI045 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 3.265093e-05
   CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                             0 0.00000e+00
##
               Otu06399 Otu06400 Otu06401 Otu06402 Otu06403 Otu06404 Otu06405
## CSI002 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
## CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                             Λ
                                                                                 0
                                                                       0
## CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
## CSI056 0.000000e+00
                                0
                                          Λ
                                                    0
                                                             Λ
                                                                       0
                                                                                 0
  CSI066 3.833694e-05
                                          0
                                                    0
##
          Otu06406 Otu06407 Otu06408 Otu06409 Otu06410 Otu06411 Otu06412
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                               0
                                                         0
## CSI013
                  0
                                     0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                             0
## CSI034
                  0
                            0
                                                         0
                                                                   0
                                     0
                                               0
                                                                             0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                             0
                                               0
## CSI056
                  0
                            0
                                     0
                                                                             0
   CST066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
##
          Otu06413 Otu06414 Otu06415 Otu06416 Otu06417 Otu06418
                                                                         Otu06419
## CSI002
                            0
                                                                   0 0.000000e+00
                  0
                                     0
                                               0
                                                         0
                            0
## CSI013
                  0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
```

```
## CSI045
                            0
                                      0
                                                                   0 0.00000e+00
  CST056
                                                0
                                                         0
                                                                   0 0.000000e+00
##
                  0
                            0
                                      0
##
   CSI066
                  0
                            0
                                                0
                                                          0
                                                                   0 5.750542e-05
##
          Otu06420
                                       Otu06422 Otu06423
                                                              Otu06424 Otu06425
                         Ot:1106421
##
  CST002
                  0 1.362194e-05 1.362194e-05
                                                        0 0.000000000
                                                                               0
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                        0 0.00000000
                                                                               0
##
                  0 0.000000e+00 0.000000e+00
  CSI023
                                                        0 0.00000000
                                                                               0
                  0 0.000000e+00 3.789817e-05
## CSI034
                                                        0 0.00000000
                                                                               0
##
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000000
                                                                               0
                                                                               Λ
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000000
   CSI066
                    0.000000e+00 0.000000e+00
                                                        0 0.000000000
                                                                               0
                         Otu06427 Otu06428 Otu06429 Otu06430 Otu06431 Otu06432
##
          Otu06426
##
   CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI013
                  0 0.00000e+00
                                          0
  CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
##
                                                                        0
   CSI034
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI045
                  0 0.00000e+00
                                                                        0
   CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CST066
                  0 1.916847e-05
                                                                        0
##
               Otu06433 Otu06434 Otu06435 Otu06436 Otu06437
                                                                Otu06438 Otu06439
##
   CSI002 1.362194e-05
                                0
                                          Λ
                                                    Ω
                                                              Λ
                                                                        0
                                                                                  O
  CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023 0.000000e+00
                                                                                  0
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
                                0
                                                                                  0
  CSI045 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI066 0.000000e+00
                                Λ
                                          0
                                                    0
                                                              0
                                                                        Λ
                                                                                  0
                                                 Otu06443 Otu06444 Otu06445
##
          Otu06440 Otu06441
                                   Otu06442
## CSI002
                  0
                            0 0.000000e+00 0.0000000000
                                                                  0
                                                                            0
## CSI013
                  0
                            0 0.000000e+00 0.0000000000
                                                                  0
                                                                            0
## CSI023
                  0
                            0 0.000000e+00 0.0000000000
                                                                  0
                                                                            0
##
   CSI034
                  0
                            0 1.894908e-05 0.0000000000
                                                                  0
                                                                            0
   CSI045
                  0
                            0 0.000000e+00 0.0000000000
                                                                  0
                                                                            0
   CSI056
                            0 0.000000e+00 0.0000000000
                                                                  0
##
                  0
                                                                            0
##
   CSI066
                  0
                            0 0.000000e+00 0.0000000000
                                                                  0
                                                                            0
##
               Otu06446
                             Otu06447 Otu06448 Otu06449 Otu06450 Otu06451
  CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
  CSI013 3.195807e-05 3.195807e-05
                                              0
                                                        Λ
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                                  0
                                                                            0
                                                        0
   CSI034 0.000000e+00 0.000000e+00
                                              Λ
                                                                  0
                                                                            0
                                                        Ω
   CSI045 0.000000e+00 0.000000e+00
                                                                  0
                                               0
                                                        0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  \cap
                                                                            0
           Otu06452 Otu06453 Otu06454 Otu06455 Otu06456 Otu06457
##
                                                                          Otu06458
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 2.724387e-05
## CSI013
                  0
                            0
                                                          0
                                                                   0 0.000000e+00
                                      0
                                                0
##
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
                                                          0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                                   0 0.00000e+00
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
   CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
                            0
                                      0
                                                0
                                                          0
##
   CST066
                  0
                                                                   0.0.000000e+00
##
               Otu06459 Otu06460 Otu06461 Otu06462 Otu06463 Otu06464
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
## CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
```

```
## CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
  CSI034 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
  CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                             Λ
                                                                       0
##
   CSI066 1.916847e-05
                                0
                                          0
                                                    0
                                                             0
               Otu06465 Otu06466 Otu06467 Otu06468
                                                          Otu06469
##
                                                                        Ot.1106470
  CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI013 0.000000e+00
                                0
                                          0
   CSI023 0.000000e+00
                                0
                                          0
                                                      0.000000e+00 0.000000e+00
                                          0
   CSI034 0.000000e+00
                                0
                                                     5.684725e-05 1.894908e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
##
   CSI066 1.916847e-05
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
                         Otu06472 Otu06473 Otu06474 Otu06475 Otu06476
##
          Otu06471
## CSI002
                  0 2.724387e-05
                                          0
                                                    0
                                                             0
                                                                       0
##
   CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                          0
                                                    0
                                                             0
##
   CSI023
                  0 0.00000e+00
                                                                       0
   CSI034
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
  CSI045
                                          0
                                                    0
                                                             0
##
                  0.000000e+00
                                                                       0
##
   CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
   CST066
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
               Otu06477 Otu06478 Otu06479 Otu06480
                                                      Otu06481
                                                               Otu06482
  CSI002 0.000000e+00
                                                    0
                                                                       0
##
                                0
                                          0
                                                             0
                                                                                 0
   CSI013 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                    0
                                                                                 0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                                                 0
   CSI056 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                0
   CSI066 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
##
           Otu06484 Otu06485 Otu06486
                                            Otu06487
                                                          Otu06488 Otu06489
## CSI002
                  0
                            0
                                      0 1.362194e-05 2.724387e-05
                                                                            0
##
   CSI013
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
   CSI023
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
                  0
                            0
                                                                            0
##
  CSI034
                                      0 3.789817e-05 0.000000e+00
   CSI045
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
                            0
                                      0 0.000000e+00 0.000000e+00
##
  CST056
                  0
                                                                            0
##
   CSI066
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
               Otu06490 Otu06491
                                      Otu06492 Otu06493 Otu06494
                                                                        Otu06495
   CSI002 1.362194e-05
                                0 0.000000e+00
                                                        0
                                                                  0 0.000000e+00
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                        0
##
                                                                  0 0.00000e+00
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.000000e+00
   CSI034 5.684725e-05
                                0 0.00000e+00
                                                        0
                                                                  0.000000e+00
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI056 1.959286e-05
                                0 0.000000e+00
                                                        0
                                                                  0 3.918572e-05
   CSI066 0.000000e+00
                                0 1.916847e-05
                                                        0
                                                                  0 0.00000e+00
               Otu06496 Otu06497 Otu06498 Otu06499 Otu06500 Otu06501
##
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                0
   CSI013 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
   CSI034 7.579634e-05
                                0
                                          0
                                                    0
                                                             0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
##
  CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
##
               Otu06502 Otu06503 Otu06504 Otu06505
                                                          Otu06506 Otu06507
```

```
## CSI002 1.362194e-05
                                                    0 0.00000e+00
                                                                            0
  CSI013 6.391614e-05
                                          0
                                                    0 0.00000e+00
                                                                            0
                                0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
  CSI034 1.894908e-05
                                0
                                          0
                                                    0 1.894908e-05
                                                                            0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                            0
   CSI056 0.000000e+00
                                          0
                                                    0 1.959286e-05
                                                                            0
                                0
   CSI066 0.000000e+00
                                          0
                                                    0 0.00000e+00
##
               Otu06508
                             Otu06509 Otu06510
                                                     Otu06511 Otu06512 Otu06513
   CSI002 0.000000e+00 0.000000e+00
                                              0 1.362194e-05
                                                                      0
                                                                      0
   CSI013 0.000000e+00 3.195807e-05
                                              0 0.00000e+00
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
                                                                                0
                                              0 0.000000e+00
   CSI034 0.000000e+00 0.000000e+00
                                                                      0
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI056 0.000000e+00 0.000000e+00
                                                                      0
                                              0 0.000000e+00
                                                                                0
   CSI066 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
##
           Otu06514 Otu06515 Otu06516
                                            Otu06517
                                                          Otu06518 Otu06519
## CSI002
                                      0 0.000000e+00 0.000000e+00
                  0
                            0
                                                                            0
##
  CSI013
                            0
                                      0 3.195807e-05 0.000000e+00
                                                                            0
## CSI023
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
                  0
## CSI034
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
  CSI045
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
## CSI056
                            0
                                      0 0.000000e+00 1.959286e-05
## CSI066
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                            0
          Otu06520 Otu06521 Otu06522
                                            Otu06523 Otu06524 Otu06525 Otu06526
##
## CSI002
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI013
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                            0
                                                             0
                                                                                 0
## CSI034
                  0
                                      0 0.000000e+00
                                                                       0
                                                             0
## CSI045
                  0
                            0
                                      0 0.000000e+00
                                                                       0
                                                                                 0
## CSI056
                  0
                            0
                                      0 0.000000e+00
                                                             0
                                                                                 0
## CSI066
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
          Otu06527 Otu06528 Otu06529 Otu06530
                                                      Otu06531 Otu06532
## CSI002
                  0
                            0
                                     0
                                               0 2.724387e-05
                                                                       0
  CSI013
                            0
                                               0 0.000000e+00
##
                  0
                                     0
                                                                       0
  CSI023
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
  CSI034
                  0
                            0
                                               0 0.00000e+00
                                                                       0
##
                                     0
## CSI045
                  0
                            0
                                               0 0.00000e+00
## CSI056
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
  CSI066
                            0
                                      0
                                               0 0.00000e+00
##
##
               Otu06533 Otu06534 Otu06535 Otu06536 Otu06537 Otu06538 Otu06539
  CSI002 0.0000000000
                                0
                                          0
                                                    0
                                                             0
## CSI013 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI023 0.0000000000
                                                                                 0
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                0
                                          0
                                                    0
                                                             0
                                                                                 0
   CSI034 0.0000000000
                                                                       Λ
   CSI045 0.0000000000
                                                             0
                                0
                                          0
                                                    0
                                                                                 0
   CSI056 0.0000000000
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI066 0.0001533478
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                         Otu06541 Otu06542 Otu06543
##
           Otu06540
                                                     Otu06544
                                                               Otu06545
## CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI023
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
                  0.0.000000e+00
## CSI034
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
## CSI056
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
```

##	CSI066	0	0.0000006	e+00	0		0		0	0	0
##		Otu06547	Otu06548	Otu06549	Otu	06550		Otu06	3551	Otu06	6552
##	CSI002	0	0	0		0	0.0	00000	e+00	0.000000	e+00
##	CSI013	0	0	0		0				0.000000	
##	CSI023	0	0	0		0				0.000000	
##	CSI034	0	0	0		0				0.000000	
##	CSI045	0	0	0		0				0.000000	
##	CSI056	0	0	0		0				1.959286	
##	CSI066	0	0	0	_	0				0.000000	
##	aa tooo		Otu06554		Otu(		Otu		Otu(		
##	CSI002	0	0	0		0		0		0	0
##	CSI013	0	0	0		0		0		0	0
##	CSI023	0	0	0		0		0		0	0
##	CSI034 CSI045	0	0	0		0		0		0	0
##	CSI045	0	0	0		0		0		0	0
##	CS1056	0	0	0		0		0		0	0
##	CDICCO	Otu06560	•	•	3562	-	3563	•	3564	Otu06565	_
##	CSI002	0		0.000000		oudo	0		0	0	0
##	CSI013	0	0	6.391614			0		0	0	0
##	CSI023	0	0	0.000000			0		0	0	0
##	CSI034	0	0	0.000000			0		0	0	0
##	CSI045	0	0	0.000000	e+00		0		0	0	0
##	CSI056	0	0	0.000000	e+00		0		0	0	0
##	CSI066	0	0	0.000000	e+00		0		0	0	0
##		Otu06567	Otu06	3568 Otu0	6569	Otu06	3570	Otu06	5571	Otu06572	Otu06573
##	CSI002	0	0.0000006	e+00	0		0		0	0	0
##	CSI013	0	0.0000006	e+00	0		0		0	0	0
##	CSI023	0	0.0000006	e+00	0		0		0	0	0
##	CSI034	0	1.8949086	e-05	0		0		0	0	0
##	CSI045	0	0.0000006	e+00	0		0		0	0	0
##	CSI056	0	0.0000006		0		0		0	0	0
##	CSI066	0	0.0000006		0		0		0	0	0
##	~~~~	Otu06574				Otu06				Otu06579	Otu06580
##	CSI002	0		0.000000			0		0	0	0
##	CSI013	0		0.000000			0		0	0	0
	CSI023	0		0.0000000 7.579634			0		0	0	0
	CSI034 CSI045	0		0.000000			0		0	0	0
	CSI043	0		0.0000000			0		0	0	0
	CSI066	0		0.0000000			0		0	0	0
##	001000		Otu06582			06584			Ů	-	Otu06587
	CSI002	0	0	0	oou	0	oou		0.00	00000e+00	0
	CSI013	0	0	0		0				00000e+00	0
	CSI023	0	0	0		0		0	0.00	0000e+00	0
	CSI034	0	0	0		0		0	0.00	0000e+00	0
	CSI045	0	0	0		0		0	0.00	00000e+00	0
##	CSI056	0	0	0		0		0	0.00	00000e+00	0
##	CSI066	0	0	0		0		0	0.00	00000e+00	0
##		Otu06	5588 (	Otu06589	C	)tu069	590	Otu069	591 (	)tu06592 (	Otu06593
##	CSI002	1.362194	e-05 1.362	2194e-05 (	0.000	0000e+	+00		0	0	0
		0.0000006							0	0	0
		0.0000006							0	0	0
##	CSI034	0.0000006	e+00 3.789	9817e-05 (	0.000	0000e+	+00		0	0	0

```
## CSI045 0.000000e+00 0.000000e+00 0.000000e+00
  CSI056 0.000000e+00 0.000000e+00 5.877858e-05
                                                           0
                                                                     0
                                                                               0
   CSI066 1.916847e-05 0.000000e+00 0.000000e+00
                                                           0
                                                                     0
##
          Otu06594 Otu06595 Otu06596 Otu06597
                                                     Otu06598 Otu06599 Otu06600
## CST002
                  0
                           0
                                     0
                                              0 5.448775e-05
                                                                      0
## CSI013
                  Λ
                           0
                                     0
                                                                      0
                                                                                Λ
                                              0 3.195807e-05
                           0
## CSI023
                  0
                                     0
                                               0 0.00000e+00
## CSI034
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
##
  CSI045
                  0
                           0
                                     0
                                               0 0.00000e+00
                           0
                                     0
                                                                      Λ
                                                                                Λ
## CSI056
                  0
                                               0 0.00000e+00
  CSI066
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                                0
          Otu06601 Otu06602 Otu06603 Otu06604 Otu06605 Otu06606 Otu06607
##
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI013
                           0
                                               0
                                                                  0
                  0
                                     0
                                                        0
                                                                           0
## CSI023
                  0
                                                                  0
                                                                           0
                           0
                                     0
                                               0
                                                        0
## CSI034
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                               0
                                                        0
## CSI045
                                     0
                                                                  0
                                                                           0
## CSI056
                           0
                                               0
##
  CST066
                  0
                           0
                                     0
                                                        0
                                                                  0
                                                                           0
##
          Otu06608
                        Otu06609 Otu06610 Otu06611
                                                         Otu06612
                                                                       Otu06613
## CSI002
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
## CSI013
                  0 0.000000e+00
                                         0
                                                   0 3.195807e-05 0.000000e+00
## CSI023
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                         0
                                                   0 3.789817e-05 0.000000e+00
## CSI034
                  0 0.00000e+00
                                         0
## CSI045
                  0 0.00000e+00
                                                   0 0.000000e+00 0.000000e+00
  CSI056
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
##
  CSI066
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
                                               Otu06617 Otu06618 Otu06619
##
          Otu06614 Otu06615
                              Otu06616
## CSI002
                  0
                           0 6.810968e-05 0.000000e+00
                                                                 0
                                                                          0
## CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
## CST034
                  0
                           0 1.894908e-05 0.000000e+00
                                                                 0
                                                                           0
## CSI045
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
## CSI056
                           0 0.000000e+00 0.000000e+00
                  0
                                                                 0
                                                                           0
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
##
          Otu06620 Otu06621 Otu06622 Otu06623 Otu06624 Otu06625 Otu06626
##
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
## CSI013
                  Ω
                           0
                                     0
                                               0
                                                        Λ
                                                                  0
                                                                           0
## CSI023
                  0
                           0
                                                        0
                                     0
                                               0
                                                                           0
                  Ω
                           0
                                     0
                                               0
                                                        0
## CST034
                                                                  0
                                                                           0
                           0
  CSI045
                  0
                                                                           0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
##
   CST066
                  0
                           0
                                               0
                                                        0
                                                                  \cap
                                                                           0
                                      Otu06629 Otu06630 Otu06631 Otu06632
##
          Otu06627
                        Otu06628
                  0 0.000000e+00 0.000000e+00
## CSI002
                                                       0
                                                                 0
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                                 0
                                                       0
                                                                           0
## CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
## CSI034
                  0 0.000000e+00 1.894908e-05
                                                       0
                                                                           0
## CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI056
                  0 1.959286e-05 3.918572e-05
                                                       0
                                                                 0
                                                                           0
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
##
##
          Otu06633 Otu06634 Otu06635
                                         Otu06636 Otu06637 Otu06638 Otu06639
## CSI002
                  0
                           0
                                    0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
## CSI013
                  0
                           0
                                    0 0.000000e+00
                                                            0
                                                                      0
                                                                                0
```

```
## CSI023
                  0
                           0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
                           0
                                                            0
                                                                                0
##
  CSI034
                  0
                                     0 3.789817e-05
                                                                      0
  CSI045
                                     0 0.000000e+00
##
                  0
                           0
                                                             0
                                                                      0
                                                                                0
  CSI056
                  0
                           0
                                       0.000000e+00
                                                             0
                                                                      0
                                                                                0
##
##
   CST066
                  0
                           0
                                       0.000000e+00
                                                             0
                                                                      0
                                                                                0
          Otu06640 Otu06641 Otu06642
                                                                   Otu06645
##
                                           Otu06643 Otu06644
## CSI002
                  0
                           0
                                     0 1.362194e-05
                                                            0 2.724387e-05
## CSI013
                  0
                           0
                                     0 3.195807e-05
                                                            0.000000e+00
##
  CSI023
                  0
                           0
                                     Λ
                                       0.000000e+00
                                                            0 0.00000e+00
                           0
##
  CSI034
                  0
                                       0.000000e+00
                                                            0 3.789817e-05
   CSI045
                  0
                           0
                                       0.000000e+00
                                                             0 0.00000e+00
                  0
                           0
##
   CSI056
                                       0.000000e+00
                                                             0 0.00000e+00
##
   CSI066
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
                             Otu06648 Otu06649 Otu06650 Otu06651 Otu06652
##
          Otu06646
                   Otu06647
  CSI002
                  0
                           0
                                               0
                                                        0
                                                                  0
                                                                            0
##
                                     0
##
   CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                           0
                                                        0
                                                                  0
                                                                            0
##
   CSI023
                  0
                                     0
                                               0
   CSI034
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                           0
                                               0
                                                        0
                                                                  0
                                                                            0
##
  CSI045
                  0
                                     0
##
   CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
##
   CST066
                  \cap
                           0
                                     Λ
                                               0
                                                        \cap
                                                                  0
                                                                            0
               Otu06653 Otu06654 Otu06655 Otu06656
##
                                                         Otu06657 Otu06658
                                0
                                         0
##
  CSI002 1.362194e-05
                                                   0 0.00000e+00
                                                                           0
   CSI013 0.000000e+00
                                         0
                                0
                                                   0 0.00000e+00
                                                                           0
   CSI023 0.000000e+00
                                                                           0
                                0
                                         0
                                                   0.000000e+00
   CSI034 0.000000e+00
                                0
                                         0
                                                   0 5.684725e-05
                                                                           0
   CSI045 0.000000e+00
                                0
                                         0
                                                                           0
                                                    0.000000e+00
                                0
                                                                           0
   CSI056 0.000000e+00
                                         0
                                                     0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00
                                                                           0
##
   CSI066 0.000000e+00
##
               Otu06659 Otu06660
                                      Otu06661
                                                    Otu06662
                                                                  Otu06663
##
   CSI002 0.000000e+00
                                0 0.000000e+00 0.000000000 0.000000e+00
   CSI013 0.000000e+00
                                0 3.195807e-05 0.000000000 0.000000e+00
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000000 0.000000e+00
                                0 0.000000e+00 0.000000000 0.000000e+00
   CSI034 1.894908e-05
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000000 0.000000e+00
                                0 0.000000e+00 0.000000000 0.000000e+00
##
   CSI056 0.000000e+00
##
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000000 0.000000e+00
##
               Otu06664 Otu06665 Otu06666 Otu06667
                                                         Otu06668 Otu06669
   CSI002 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
                                0
                                         0
                                                                           0
   CSI013 3.195807e-05
                                                   0 0.00000e+00
   CSI023 0.000000e+00
                                         0
                                0
                                                   0 0.00000e+00
                                                                           0
   CSI034 0.000000e+00
                                0
                                         0
                                                                           0
                                                   0 3.789817e-05
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
                                                                           Λ
   CSI056 0.000000e+00
                                0
                                         0
                                                    1.959286e-05
                                0
   CSI066 0.000000e+00
                                         0
                                                   0 0.00000e+00
##
               Otu06670 Otu06671 Otu06672
                                                Otu06673 Otu06674
                                                                       Otu06675
   CSI002 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
                                0
   CSI013 0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.000000e+00
   CSI034 3.789817e-05
                                0
                                         0 5.684725e-05
                                                                 0 0.00000e+00
                                0
   CSI045 0.000000e+00
                                         0 0.00000e+00
                                                                 0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
   CSI066 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.000000e+00
##
          Otu06676 Otu06677 Otu06678 Otu06679
                                                     Otu06680 Otu06681
```

```
## CSI002
                            0
                                                0 0.00000e+00
                                                                       0
## CST013
                  0
                                                0 0.00000e+00
                            0
                                      0
                                                                       0
  CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
  CSI034
                  0
                            0
                                      0
                                                0 3.789817e-05
                                                                       0
##
##
  CSI045
                  0
                            0
                                                0 0.000000e+00
                                                                       0
                            0
                                                0 0.000000e+00
##
  CSI056
                  0
                                      0
                                                                       0
                            0
                                      0
##
   CSI066
                                                0 0.00000e+00
               Otu06682 Otu06683 Otu06684 Otu06685
##
                                                          Ot:1106686
                                                                         Ot:1106687
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
                                0
                                          0
   CSI013 6.391614e-05
                                                    0 9.587421e-05 0.000000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI034 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 1.959286e-05
   CSI066 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
           Otu06688 Otu06689 Otu06690 Otu06691 Otu06692
                                                                Otu06693 Otu06694
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
##
  CSI013
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
  CSI023
                            0
                                                0
                                                         0 0.000000e+00
                                                                                 0
##
                  0
                                      0
##
  CSI034
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                 0
  CSI056
                            0
                                                0
                                                         0 0.000000e+00
                                                                                 0
## CSI066
                                                                                 O
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
               Otu06695
                             Otu06696 Otu06697
                                                     Otu06698 Otu06699 Otu06700
##
  CSI002 0.000000e+00 1.362194e-05
                                              0 0.00000e+00
                                                                       0
   CSI013 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                       0
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                       0
                                                                                0
   CSI034 0.000000e+00 0.000000e+00
                                              0 3.789817e-05
                                                                       0
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                       0
                                                                                0
   CSI056 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                       0
                                                                                0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                       0
                                                                                0
##
           Otu06701 Otu06702 Otu06703 Otu06704
                                                      Otu06705 Otu06706 Otu06707
## CSI002
                            0
                                      0
                                                0 4.086581e-05
                                                                       0
                                                                                 0
  CSI013
                                                0 0.000000e+00
                                                                                 0
##
                  0
                            0
                                      0
                                                                       0
  CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
                                                0 7.579634e-05
  CSI034
                            0
                                                                       0
                                                                                 0
##
                  0
                                      0
## CSI045
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                                 0
## CSI056
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                                                                                 0
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                       0
                                                                                 0
##
  CSI066
                                            Otu06711 Otu06712 Otu06713
##
           Otu06708 Otu06709 Otu06710
                            0
                                      0 0.000000e+00
## CSI002
                  0
                                                              0
## CSI013
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
  CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                       0
                  0
                            0
                                                              0
##
  CSI034
                                      0 0.000000e+00
                                                                       0
                            0
                                                              0
  CSI045
                  0
                                      0 0.000000e+00
                                                                       0
## CSI056
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                  0
##
  CSI066
                            0
                                      0 5.750542e-05
                                                              0
                                                                       0
##
               Otu06714 Otu06715 Otu06716 Otu06717 Otu06718
                                                                Otu06719
                                                                          Otu06720
  CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI045 3.265093e-05
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
```

```
## CSI066 1.916847e-05
                                0
                                         0
                                                   0
                                                            0
##
          Otu06721 Otu06722 Otu06723 Otu06724 Otu06725 Otu06726
                                                                        Ot:1106727
## CSI002
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI013
                  Ω
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI034
                           0
                                     0
                                               0
## CSI045
                  0
                                                                  0 0.00000e+00
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0.000000e+00
## CSI066
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
          Otu06728 Otu06729 Otu06730
                                           Otu06731 Otu06732
##
                                                                   Otu06733
## CSI002
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI013
                  0
                           0
                                                            0 0.000000e+00
                                     0 0.00000e+00
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
                           0
                                                            0 0.00000e+00
## CSI034
                  0
                                     0 0.00000e+00
## CSI045
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
## CSI056
                  0
                           0
                                     0 1.959286e-05
                                                            0 0.00000e+00
                  0
                           0
                                     0 0.000000e+00
##
  CSI066
                                                            0 0.00000e+00
          Otu06734 Otu06735 Otu06736 Otu06737
                                                     Otu06738 Otu06739
                                              0 0.000000e+00
## CST002
                  0
                           0
                                     0
                                                                      0
## CSI013
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
## CSI023
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
## CSI034
                           0
                                               0 0.000000e+00
## CSI045
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                           0
## CSI056
                                               0 0.00000e+00
                           0
## CSI066
                  0
                                     0
                                               0 0.00000e+00
               Otu06740 Otu06741 Otu06742 Otu06743 Otu06744 Otu06745 Otu06746
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                0
                                         0
                                                            0
                                                                      0
                                                                                0
   CSI013 3.195807e-05
                                                   0
                                                            0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                                      0
                                                                                0
  CSI034 1.894908e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                        Otu06748 Otu06749 Otu06750 Otu06751
##
          Otu06747
                                                              Otu06752 Otu06753
## CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI013
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                  0 0.00000e+00
## CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034
                  0 0.000000e+00
                                         Λ
                                                   0
                                                            Λ
                                                                                0
                                                                      0
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI045
                  0 0.000000e+00
                                         Λ
                                                   0
                                                            Λ
                                                                                0
##
  CSI056
                                                                      0
                                                            0
   CSI066
                  0 1.916847e-05
          Otu06754 Otu06755 Otu06756
                                           Otu06757 Otu06758
##
                                                                   Ot:1106759
## CSI002
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
                           0
## CSI013
                  0
                                     0 0.000000e+00
                                                            0 0.00000e+00
                           0
## CSI023
                  0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI034
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
##
  CSI045
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
                  0
                           0
  CSI056
                                     0 0.00000e+00
                                                            0 0.000000e+00
   CSI066
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
              Otu06760 Otu06761 Otu06762 Otu06763 Otu06764
                                                                   Otu06765
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                            0 1.362194e-05
                                0
                                         0
## CSI013 0.000000e+00
                                                   0
                                                            0 0.00000e+00
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                            0 0.000000e+00
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                            0 0.000000e+00
```

```
## CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI056 0.000000e+00
                                         0
                                                   0
                                                             0 0.000000e+00
                                0
   CSI066 0.000000e+00
                                0
                                         0
                                                             0 1.916847e-05
##
               Otu06766 Otu06767
                                      Otu06768
                                                    Otu06769 Otu06770 Otu06771
   CSI002 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
  CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
                                0 0.000000e+00 1.894908e-05
  CSI034 5.684725e-05
                                                                      0
                                                                               0
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
                                                                      Λ
   CSI056 0.000000e+00
                                0 3.918572e-05 0.000000e+00
                                                                               0
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                      0
                                                                               0
          Otu06772 Otu06773 Otu06774
##
                                            Otu06775
                                                          Otu06776 Otu06777
##
   CSI002
                  0
                            0
                                     0 0.0000000000 4.086581e-05
                                                                           0
                            0
##
  CSI013
                  0
                                     0 0.000000000 0.000000e+00
                                                                           0
  CSI023
                  0
                            0
                                     0 0.000000000 0.000000e+00
                                                                           0
##
   CSI034
                  0
                            0
                                     0 0.0001515927 0.000000e+00
                                                                           0
##
                  0
                            0
                                     0 0.000000000 0.000000e+00
                                                                           0
##
   CSI045
   CSI056
                  0
                            0
                                       0.000000000 0.000000e+00
                                                                           0
                                     0 0.000000000 0.000000e+00
##
   CST066
                  0
                            0
                                                                           0
##
               Otu06778
                             Otu06779 Otu06780
                                                    Otu06781 Otu06782
##
   CSI002 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
   CSI013 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
   CSI023 0.000000e+00 0.000000e+00
                                              0.000000e+00
                                                                      0
   CSI034 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                      0
   CSI045 0.000000e+00 0.000000e+00
                                              0 6.530186e-05
                                                                      0
   CSI056 1.959286e-05 1.959286e-05
                                              0 1.959286e-05
                                                                      0
   CSI066 0.000000e+00 3.833694e-05
                                              0 0.00000e+00
                                                                      0
##
               Otu06783 Otu06784 Otu06785 Otu06786 Otu06787
##
                                                               Otu06788
                                                                        Otu06789
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
##
                                                                                0
   CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
   CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                0
                                                                      0
   CSI066 0.000000e+00
                                0
                                                   0
                                                             0
                                                                                0
##
          Otu06790 Otu06791 Otu06792
                                                          Otu06794
                                                                        Otu06795
##
                                            Ot:1106793
## CSI002
                  0
                            0
                                     0 8.173162e-05 4.086581e-05 0.000000e+00
## CSI013
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI023
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                            0
                                     0 1.894908e-05 0.000000e+00 0.000000e+00
##
  CST034
                            0
                                     0 0.000000e+00 0.000000e+00 3.265093e-05
   CSI045
                  0
  CSI056
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI066
                  0
                            0
          Otu06796 Otu06797
                                  Otu06798 Otu06799 Otu06800 Otu06801 Otu06802
##
## CSI002
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                                                0
  CSI013
                  0
                            0 0.000000e+00
                                                   0
                                                             0
                                                                      0
##
##
   CSI023
                  0
                            0
                             0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
                  0
                                                   0
                                                                                0
##
   CSI034
                              0.000000e+00
                                                             0
                                                                      0
##
   CSI045
                  0
                            0
                              0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
   CSI056
                  0
                              0.000000e+00
                                                   0
                                                             0
                                                                      0
                                                                                0
##
                            0 0.000000e+00
                                                   0
                                                             0
                                                                                0
##
   CST066
                  0
                                                                      0
##
               Otu06803 Otu06804 Otu06805 Otu06806 Otu06807
                                                                   Otu06808
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
```

```
## CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI034 1.894908e-05
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
                                                              0 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                                0.000000e+00
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
##
               Otu06809 Otu06810 Otu06811 Otu06812
                                                           Otu06813 Otu06814
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 2.724387e-05
##
  CSI013 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0
                                                      6.123074e-05
                                                                            0
                                                                            Λ
   CSI034 0.000000e+00
                                0
                                          0
                                                      0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                      0.000000e+00
                                                                            0
                                0
                                          0
                                                      0.000000e+00
                                                                            0
##
   CSI056 1.959286e-05
##
   CSI066 0.000000e+00
                                          0
                                                    0
                                                      0.000000e+00
                                                                            0
          Otu06815 Otu06816
                                                      Otu06819
##
                                   Otu06817 Otu06818
                                                                     Otu06820
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000000
##
   CSI013
                  0
                              0.000000e+00
                                                    0
                                                              0 0.000000000
                  0
                                                    0
##
   CSI023
                              0.000000e+00
                                                              0 0.000000000
   CSI034
                  0
                              0.000000e+00
                                                    0
                                                                0.0001326436
##
  CSI045
                  0
                                                    0
##
                              0.000000e+00
                                                              0 0.000000000
##
   CSI056
                  0
                              0.000000e+00
                                                    0
                                                              0 0.000000000
##
   CST066
                  0
                            Ω
                              3.833694e-05
                                                    0
                                                              0 0.000000000
          Otu06821 Otu06822
                                   Otu06823 Otu06824
                                                           Otu06825 Otu06826
##
## CSI002
                                                                            0
                  0
                            0 0.00000e+00
                                                    0.0000000000
                                                      0.000000000
##
   CSI013
                  0
                              0.00000e+00
                                                                            0
                                                                            0
## CSI023
                  0
                            0
                              0.000000e+00
                                                      0.0000000000
   CSI034
                  0
                            0
                              3.789817e-05
                                                      0.000000000
                                                                            0
   CSI045
                  0
                              0.000000e+00
                                                      0.000000000
                                                                            0
##
                            0
                              0.000000e+00
                                                                            0
##
   CSI056
                  0
                                                      0.000000000
   CSI066
                  0
                            0 0.00000e+00
                                                    0 0.000000000
                                                                            0
##
##
          Otu06827
                    Otu06828
                              Otu06829
                                            Otu06830
                                                      Otu06831 Otu06832 Otu06833
## CSI002
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI013
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI023
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
                                                                        0
                                                                                  0
##
   CSI034
                                        1.894908e-05
   CSI045
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
                  0
                            0
                                        0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CST056
##
   CSI066
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
          Otu06834
                         Otu06835 Otu06836 Otu06837
                                                           Otu06838 Otu06839
  CSI002
                    0.000000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
##
  CSI013
                                          0
                                                                            0
##
                  0 0.000000e+00
                                                    0 0.000000e+00
   CSI023
                                          0
                                                                            0
                    0.000000e+00
                                                      0.000000e+00
  CSI034
                    0.000000e+00
                                          0
                                                      0.000000e+00
                                                                            0
##
                  0
##
   CSI045
                    0.000000e+00
                                          0
                                                      0.000000e+00
                                                                            0
                                          0
                                                                            0
##
   CSI056
                    0.000000e+00
                                                    0 0.00000e+00
                                          0
##
   CSI066
                  0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
                    Otu06841 Otu06842 Otu06843 Otu06844 Otu06845
                                                                     Otu06846
          Otu06840
##
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                                                          0
                                                                    0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                                             0
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI045
                                      0
##
  CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
          Otu06847
                         Otu06848 Otu06849 Otu06850 Otu06851 Otu06852 Otu06853
```

```
## CSI002
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI013
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
##
                                                                         0
   CSI023
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                                                                   0
   CSI034
                    1.894908e-05
                                           0
                                                     0
                                                               0
                                                                         0
##
##
   CSI045
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                    0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI056
                                           0
                                           0
                                                     0
                                                               0
##
   CSI066
                    0.000000e+00
                    Otu06855 Otu06856 Otu06857 Otu06858 Otu06859
##
           Otu06854
                                                                      Otu06860
## CSI002
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
                                                                              0
                             0
                                                0
                                                          0
                                                                     0
##
   CSI013
                  0
                                       0
                                                                              0
   CSI023
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
                                                                              0
   CSI034
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
                                                                              0
##
##
   CSI045
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0
                                                                              0
   CSI056
                             0
                                                0
                                                                     0
##
                  0
                                       0
                                                          0
                                                                              0
   CSI066
                  0
                             0
                                      0
                                                0
                                                          0
                                                                     0
                                                                              0
##
##
           Otu06861
                     Otu06862
                               Otu06863 Otu06864 Otu06865
                                                             Otu06866
                                                                           Otu06867
  CSI002
                                                          0
##
                  0
                             0
                                      0
                                                0
                                                                     0 0.00000e+00
##
   CSI013
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0 0.00000e+00
   CSI023
                  0
                             0
                                                0
                                                          0
                                                                     0 0.000000e+00
##
                                      0
##
   CSI034
                  0
                             0
                                       0
                                                0
                                                          0
                                                                     0 3.789817e-05
##
   CSI045
                  Λ
                             0
                                       O
                                                0
                                                          0
                                                                     0 0.000000e+00
   CSI056
                   0
                             0
                                                0
                                                                     0 0.000000e+00
##
                  0
                             0
                                                0
                                                                     0 0.000000e+00
##
   CSI066
                                       0
           Otu06868
                    Otu06869
                                             Otu06871
##
                              Otu06870
                                                            Otu06872 Otu06873
## CSI002
                  0
                             0
                                      0 0.000000e+00 0.0000000000
                                                                             0
   CSI013
                  0
                             0
                                        0.000000e+00 0.0000000000
                                                                             0
  CSI023
                  0
                             0
                                        0.000000e+00 0.0000000000
                                                                             0
##
                             0
##
   CSI034
                  0
                                        0.000000e+00 0.0000000000
                                                                             0
                             0
   CSI045
                  0
                                       0 3.265093e-05 0.0000000000
                                                                             0
##
##
   CSI056
                   0
                             0
                                       0 0.000000e+00 0.0000000000
##
   CSI066
                  0
                             0
                                       0 0.000000e+00 0.0000000000
##
           Otu06874
                    Otu06875 Otu06876 Otu06877
                                                       Otu06878
                                                                      Otu06879
##
  CSI002
                  0
                             0
                                      0
                                                0 0.000000e+00 0.000000e+00
   CSI013
                             0
                                       0
                                                0 0.000000e+00 0.000000e+00
##
                  0
   CSI023
                  0
                             0
                                       0
                                                0 0.000000e+00 0.000000e+00
                  0
                             0
                                                0 0.000000e+00 0.000000e+00
##
   CSI034
                                       0
##
   CSI045
                  0
                             0
                                                0 3.265093e-05 0.000000e+00
##
  CSI056
                  Λ
                             0
                                       0
                                                0 0.000000e+00 0.000000e+00
                  0
                             0
                                       0
                                                0 0.000000e+00 0.000000e+00
##
   CSI066
##
                    Otu06881
                               Otu06882 Otu06883 Otu06884
                                                                 Otu06885 Otu06886
           Otu06880
  CSI002
                  0
                             0
                                      0
                                                0
                                                          0 1.362194e-05
## CSI013
                  0
                             0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                   0
   CSI023
                  0
                             0
                                       0
                                                0
                                                          0 0.00000e+00
                                                                                   0
                  0
                             0
                                                0
                                                                                   0
   CSI034
                                       0
                                                          0 3.789817e-05
##
                             0
##
   CSI045
                  0
                                       0
                                                0
                                                          0 0.00000e+00
                                                                                   0
   CSI056
                             0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
##
                  0
##
   CSI066
                             0
                                      0
                                                          0 0.00000e+00
                                                                                   0
               Otu06887 Otu06888 Otu06889
##
                                                  Otu06890 Otu06891
                                                                          Otu06892
   CSI002 0.000000e+00
                                 0
                                           0 0.000000e+00
                                                                   0 0.00000e+00
   CSI013 0.000000e+00
                                 0
                                           0 0.00000e+00
                                                                   0 0.00000e+00
   CSI023 0.000000e+00
                                 0
                                                                   0 0.000000e+00
                                             0.000000e+00
   CSI034 0.000000e+00
                                 0
                                           0 0.00000e+00
                                                                   0 7.579634e-05
## CSI045 6.530186e-05
                                 0
                                           0 0.00000e+00
                                                                   0 0.000000e+00
## CSI056 0.000000e+00
                                 0
                                           0 0.00000e+00
                                                                   0 0.00000e+00
```

```
## CSI066 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0 0.00000e+00
##
          Otu06893 Otu06894 Otu06895 Otu06896 Otu06897 Otu06898 Otu06899
## CSI002
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI013
                                                                  0
                                                                            0
                  0
                            0
                                     0
                                               0
                                                         0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                  0
                            0
                                               0
                                                                  0
## CSI034
                                     0
                                                         0
                                                                            0
                            0
                                                                  0
## CSI045
                  0
                                     0
                                               0
                                                         0
                                                                            0
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
  CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
          Otu06900 Otu06901
                              Otu06902 Otu06903 Otu06904 Otu06905
                                                                         Otu06906
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
                            0
                                                                  0 1.894908e-05
## CSI034
                  0
                                     0
                                               0
                                                         0
  CSI045
                  0
                            0
                                     0
                                               0
                                                         0
##
                                                                  0.0.000000e+00
##
  CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
                            0
                                     0
                                               0
                                                         0
##
  CSI066
                  0
                                                                  0 0.00000e+00
##
               Otu06907 Otu06908 Otu06909 Otu06910 Otu06911 Otu06912 Otu06913
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI034 7.579634e-05
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI045 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                                Λ
                                0
                                                                       0
   CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
  CSI066 0.000000e+00
                                          0
                                                   0
                                                             \cap
                                                                       0
                                                                                 0
          Otu06914 Otu06915
                                  Otu06916
                                                Otu06917 Otu06918 Otu06919
## CSI002
                  0
                            0 0.0001089755 2.724387e-05
                                                                 0
                                                                           0
                            0 0.000000000 0.000000e+00
                                                                 0
##
  CSI013
                  0
                                                                           0
                                                                 0
## CSI023
                  0
                            0 0.000000000 0.000000e+00
                                                                           0
## CSI034
                  0
                            0 0.000000000 0.000000e+00
                                                                 0
                                                                           0
## CSI045
                  0
                            0 0.000000000 0.000000e+00
                                                                 0
                                                                           0
##
  CSI056
                  0
                            0 0.000000000 0.000000e+00
                                                                 0
                                                                           0
##
   CSI066
                  0
                            0 0.000000000 0.000000e+00
                                                                 0
               Otu06920 Otu06921
##
                                      Dt:1106922
                                                    Otu06923
                                                                  Ot:1106924
   CSI002 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00 3.195807e-05
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI034 1.894908e-05
                                0 0.000000e+00 5.684725e-05 0.000000e+00
   CSI045 0.000000e+00
                                0 3.265093e-05 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
                                      Otu06927 Otu06928 Otu06929 Otu06930
##
               Otu06925 Otu06926
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           Ω
                                                                 0
                                                                           0
   CSI013 0.000000e+00
                                0 3.195807e-05
                                                       0
                                                                 0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                           0
  CSI034 1.894908e-05
                                                       0
                                                                 0
                                                                           0
                                0 0.00000e+00
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                           0
##
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
          Otu06931
                        Otu06932
                                      Otu06933 Otu06934 Otu06935
                                                                        Otu06936
## CSI002
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
## CSI013
                  0 3.195807e-05 0.000000e+00
                                                       0
                                                                 0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
## CSI023
                                                       0
                                                                 0 0.000000e+00
## CSI034
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0 0.000000e+00
```

```
## CSI045
                  0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0 0.00000e+00
## CST056
                  0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0 0.00000e+00
  CSI066
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0 0.00000e+00
           Otu06937 Otu06938 Otu06939 Otu06940 Otu06941 Otu06942 Otu06943
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI023
                   0
                             0
                                                           0
                                                                     0
                                                                               0
                                       0
                                                 0
## CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
## CSI056
                   0
                                                                               0
   CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
                    Otu06945
                               Otu06946 Otu06947
##
           Otu06944
                                                   Otu06948 Otu06949
                                                                       Otu06950
##
  CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI013
                             0
                                                 0
                                                           0
                                                                     0
                   0
                                       0
                                                                               0
## CSI023
                   0
                             0
                                                           0
                                                                     0
                                                                               0
                                       0
                                                 0
## CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                     0
## CSI045
                                       0
                                                                               0
##
  CSI056
                             0
                                                                     0
                                                                               0
                             0
##
   CST066
                   0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu06951 Otu06952 Otu06953 Otu06954 Otu06955 Otu06956
                                                                           0tu06957
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
## CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0.000000e+00
                             0
                                                           0
                                                                     0 0.000000e+00
## CSI034
                   0
                                       0
                                                 0
## CSI045
                             0
                                                 0
                                                           0
                   0
                                       0
                                                                     0 0.00000e+00
  CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
   CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 1.916847e-05
##
                    Otu06959
                               Otu06960 Otu06961 Otu06962 Otu06963
           Otu06958
                                                                           Otu06964
## CSI002
                   0
                             0
                                                 0
                                                           0
                                                                     0 0.000000e+00
                                       0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
## CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 2.041025e-05
##
  CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 3.789817e-05
## CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
  CSI056
                             0
                                                 0
##
                   0
                                       0
                                                           0
                                                                     0 0.00000e+00
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
           Otu06965 Otu06966 Otu06967 Otu06968 Otu06969 Otu06970 Otu06971
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI023
                   0
                             0
                                                 0
                                                           0
                   0
                             0
                                                 0
                                                           0
                                                                     0
## CSI034
                                       0
                                                                               0
                   0
                             0
                                                 0
                                                           0
  CSI045
                                                                               0
## CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                             0
   CSI066
                   0
                                       0
                                                 0
                                                           0
                                                                               0
           Otu06972 Otu06973 Otu06974 Otu06975
##
                                                       Otu06976
                                                                      Otu06977
                                                 0 0.000000e+00 1.362194e-05
## CSI002
                   0
                             0
                                       0
## CSI013
                   0
                             0
                                       0
                                                 0 1.917484e-04 0.000000e+00
## CSI023
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
                   0
                             0
                                       0
## CSI034
                                                 0 0.000000e+00 0.000000e+00
## CSI045
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
   CSI056
                   0
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
                             0
                                       0
                                                 0 0.000000e+00 0.000000e+00
##
                   0
##
               Otu06978 Otu06979 Otu06980 Otu06981
                                                            Otu06982
                                                                          Otu06983
## CSI002 0.000000e+00
                                 0
                                           0
                                                     0 0.000000e+00 2.724387e-05
## CSI013 0.000000e+00
                                 0
                                           0
                                                     0 0.000000e+00 6.391614e-05
```

```
## CSI023 0.000000e+00
                               0
                                                   0 0.000000e+00 0.000000e+00
  CSI034 0.000000e+00
                                         0
                                                   0 3.789817e-05 0.000000e+00
                               0
   CSI045 0.000000e+00
                               0
                                         0
                                                   0 0.000000e+00 0.000000e+00
  CSI056 5.877858e-05
                               0
                                         0
                                                    0.000000e+00 0.000000e+00
##
   CSI066 1.916847e-05
                                         0
                                                   0 0.000000e+00 0.000000e+00
          Otu06984 Otu06985
                                               Otu06987 Otu06988
##
                                  Otu06986
                                                                       Ot:1106989
## CSI002
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 1.362194e-05
                           0 0.000000e+00 0.000000e+00
## CSI013
                  0
                                                                 0 0.00000e+00
##
  CSI023
                  0
                             0.000000e+00 0.000000e+00
                                                                 0 0.000000e+00
##
  CSI034
                  0
                             0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
   CSI045
                  0
                             0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
                  0
                             0.000000e+00 0.000000e+00
##
   CSI056
                                                                 0 0.00000e+00
##
   CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.000000e+00
          Otu06990 Otu06991 Otu06992 Otu06993 Otu06994 Otu06995 Otu06996
##
## CSI002
                                              0
                                                        0
                                                                  0
                  0
                           0
                                     0
                                                                           0
##
   CSI013
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                           0
                                                        0
                                                                  0
                                                                           0
##
  CSI023
                  0
                                     0
                                              0
   CSI034
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                           0
                                              0
                                                        0
                                                                  0
                                                                           0
##
  CST045
                  0
                                     0
##
   CSI056
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
##
   CST066
                  \cap
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
               Otu06997 Otu06998
                                                    Otu07000 Otu07001 Otu07002
##
                                      Ot:1106999
                               0 0.000000e+00 0.000000e+00
  CSI002 0.000000e+00
##
                                                                     0
                                                                               0
   CSI013 0.000000e+00
                               0 3.195807e-05 0.000000e+00
                                                                     0
                                                                               0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI034 0.000000e+00
                               0 1.894908e-05 0.000000e+00
                                                                     0
                                                                              0
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
                                                                     0
   CSI056 0.000000e+00
                               0 0.000000e+00 1.959286e-05
                                                                               0
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
##
   CSI066 1.916847e-05
##
               Otu07003 Otu07004 Otu07005
                                               Otu07006 Otu07007 Otu07008
##
   CSI002 0.0001089755
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI013 0.0000000000
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI023 0.0000000000
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
                               0
                                                                 0
                                                                          0
   CSI034 0.0000000000
                                         0 0.00000e+00
   CSI045 0.0000000000
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
   CSI056 0.0000000000
                                                                 0
                                                                          0
##
                               0
                                         0.000000e+00
##
   CSI066 0.0000000000
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
##
                            Otu07010 Otu07011
                                                    Otu07012 Otu07013
               Ot:1107009
   CSI002 6.810968e-05 4.086581e-05
                                             0 1.362194e-05
                                                                     0
   CSI013 6.391614e-05 0.000000e+00
                                                                     0
                                             0 0.00000e+00
   CSI023 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                     0
   CSI034 0.000000e+00 0.000000e+00
                                                                     0
                                             0 5.684725e-05
   CSI045 0.000000e+00 0.000000e+00
                                             0 0.000000e+00
                                                                     0
                                                                     0
   CSI056 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
                                                                     0
   CSI066 0.000000e+00 0.000000e+00
                                             0 0.00000e+00
##
               Otu07014 Otu07015 Otu07016 Otu07017
                                                         Otu07018 Otu07019
   CSI002 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
   CSI013 3.195807e-05
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
   CSI023 0.000000e+00
                               0
                                         0
                                                   0 0.000000e+00
                                                                          0
   CSI034 3.789817e-05
                               0
                                         0
                                                     0.000000e+00
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0
                                                                          0
                                                     3.265093e-05
   CSI056 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
##
  CSI066 0.000000e+00
                               0
                                         0
                                                   0.000000e+00
                                                                          0
##
          Otu07020 Otu07021 Otu07022 Otu07023 Otu07024
                                                              Otu07025 Otu07026
```

```
## CSI002
                  0
                            0
                                                          0 1.362194e-05
                                                                                   0
  CSI013
                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                   0
##
                                      0
  CSI023
                                                          0 0.000000e+00
##
                  0
                            0
                                      0
                                                0
                                                                                   0
                            0
                                                                                  0
   CSI034
                  0
                                      0
                                                0
                                                          0 0.000000e+00
##
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
   CSI056
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   O
##
                            0
                                      0
                                                          0 0.000000e+00
##
   CSI066
                   0
                                                 Otu07030 Otu07031
                                                                          0tu07032
##
           Otu07027
                         Otu07028 Otu07029
##
  CSI002
                  0 0.000000e+00
                                           0 1.362194e-05
                                                                   0 0.000000e+00
##
   CSI013
                   0 0.000000e+00
                                           0 0.000000e+00
                                                                   0 0.000000e+00
   CSI023
                   0 0.000000e+00
                                           0 0.00000e+00
                                                                   0 0.000000e+00
                                                                   0 0.000000e+00
   CSI034
                                           0 0.000000e+00
##
                  0 3.789817e-05
##
   CSI045
                   0 0.000000e+00
                                           0 0.000000e+00
                                                                   0 0.000000e+00
                   0 0.000000e+00
                                                                   0 1.959286e-05
##
   CSI056
                                           0 0.00000e+00
##
   CSI066
                  0 0.000000e+00
                                           0 0.000000e+00
                                                                   0 0.000000e+00
##
           Otu07033 Otu07034 Otu07035 Otu07036 Otu07037 Otu07038
                                                                           Otu07039
## CSI002
                            0
                                                          0
                                                                    0 0.000000e+00
                  0
                                      0
                                                0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
  CSI023
                  0
                            0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
                                      0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
   CSI056
                   0
                            0
                                                0
                                                                    0 5.877858e-05
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
                         Otu07041 Otu07042 Otu07043 Otu07044
##
           Otu07040
                                                                     0tu07045
## CSI002
                  0 0.00000e+00
                                           0
                                                     0
                                                              0 1.362194e-05
   CSI013
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
##
   CSI023
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
##
   CSI034
                   0 0.000000e+00
                                           0
                                                     0
   CSI045
                   0 0.000000e+00
                                                               0 0.000000e+00
##
   CSI056
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
##
   CSI066
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
##
           Otu07046 Otu07047
                                   Otu07048
                                                 Otu07049 Otu07050 Otu07051
## CSI002
                  0
                            0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
  CSI013
                  0
                            0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
##
   CSI023
                  0
                            0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
  CSI034
                  0
                            0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
##
##
  CSI045
                  0
                            0 0.000000e+00 0.0000000000
                                                                   0
                                                                             0
## CSI056
                  0
                            0 1.959286e-05 0.0000000000
                                                                   0
                                                                             0
                   0
                              0.000000e+00 0.0000000000
                                                                   0
                                                                             0
##
   CSI066
##
           Otu07052 Otu07053 Otu07054 Otu07055 Otu07056 Otu07057 Otu07058
                            0
                                                                              0
  CSI002
                  0
                                      0
                                                0
                                                          0
                                                                    0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI034
                                      0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI045
                                      0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI066
                  0
                                      0
                                                0
                                                          0
                                                                    0
                         Otu07060 Otu07061 Otu07062 Otu07063 Otu07064 Otu07065
##
           Otu07059
## CSI002
                  0 0.000000e+00
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
                                                                                   0
##
   CSI013
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                        0
   CSI023
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
##
                   0 0.000000e+00
## CSI034
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
## CSI045
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                  0
## CSI056
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
```

```
## CSI066
                  0 0.00000e+00
                                                             0
                                                                       0
                        Otu07067 Otu07068
##
          Ot:1107066
                                                Ot1107069 Ot1107070 Ot1107071
## CSI002
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                 0
## CSI013
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
## CSI023
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
                                                                           0
                                                                 0
## CSI034
                  0 3.789817e-05
                                         0 0.00000e+00
                                                                           0
## CSI045
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                 0
## CSI056
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
##
  CSI066
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 Ω
          Otu07072 Otu07073 Otu07074
                                            Otu07075 Otu07076 Otu07077 Otu07078
##
## CSI002
                  0
                            0
                                     0 2.724387e-05
                                                             0
                                                                       0
## CSI013
                  0
                            0
                                                             0
                                                                       0
                                                                                0
                                     0 0.00000e+00
## CSI023
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                0
                                                             0
## CSI034
                  0
                            0
                                     0 0.00000e+00
                                                                       0
                                                                                0
## CSI045
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                                0
                                                                       0
## CSI056
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                0
                  0
                            0
                                     0 0.000000e+00
                                                             0
##
  CSI066
                                                                       0
                                                                                0
##
          Otu07079
                        Otu07080 Otu07081 Otu07082 Otu07083 Otu07084
## CSI002
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                       0
## CSI013
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
  CSI023
                  0 0.000000e+00
                                         0
                                                   Λ
                                                             Λ
                                                                       0
## CSI034
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
## CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                       0
  CSI056
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
##
  CSI066
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
              Otu07085 Otu07086
                                      Otu07087 Otu07088 Otu07089 Otu07090
## CSI002 0.0000000000
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
   CSI013 0.0001917484
                                0 0.00000e+00
                                                       0
                                                                           0
   CSI023 0.0000000000
                                0 2.041025e-05
                                                       0
                                                                 0
                                                                           0
   CSI034 0.0000000000
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI045 0.0000000000
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI056 0.0000000000
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
   CSI066 0.0000000000
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
          Otu07091 Otu07092 Otu07093 Otu07094 Otu07095
##
                                                               Otu07096 Otu07097
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                                                                                0
## CSI013
                           0
                                     0
                                               0
                                                                                0
                  0
                                                        0 0.000000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                0
## CSI034
                  Ω
                            0
                                               0
                                                         0 0.000000e+00
                                                                                0
                                     0
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
  CSI045
                            0
                                     0
                                               0
                                                                                0
##
  CSI056
                  \cap
                                                         0.0.000000e+00
                                     0
   CSI066
                            0
                                                         0 0.00000e+00
##
              Otu07098 Otu07099 Otu07100 Otu07101 Otu07102
                                                                   0t_{11}07103
  CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
   CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
  CSI034 1.894908e-05
                                0
                                         0
                                                   0
                                                             0 1.894908e-05
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
                                0
                                         0
                                                   0
   CSI056 0.000000e+00
                                                             0 0.000000e+00
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
##
          Otu07104 Otu07105 Otu07106 Otu07107 Otu07108 Otu07109
                                                                         Otu07110
## CSI002
                                     0
                                                        0
                                                                  0 0.000000e+00
                  0
                            0
                                               0
## CSI013
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0.000000e+00
## CSI034
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0 3.789817e-05
```

```
## CSI045
                  0
                            0
                                                                   0 0.00000e+00
  CSI056
                  0
                                                0
                                                          0
##
                            0
                                      0
                                                                   0 0.00000e+00
   CSI066
                                                                   0 0.000000e+00
##
                  0
                            0
                                      0
                                                0
                                                          0
##
          Otu07111 Otu07112
                                  Otu07113 Otu07114 Otu07115 Otu07116 Otu07117
##
  CSI002
                  0
                            0
                              1.362194e-05
                                                    0
                                                              0
                                                                        0
  CSI013
                  0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                            0 0.00000e+00
                                                              0
  CSI023
                  0
                            0 0.000000e+00
                                                    0
                                                                        0
                                                                                  0
## CSI034
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI045
                  0
                            0
                              0.000000e+00
                                                    0
                                                              0
                                                                                  0
                                                    0
                                                              0
                                                                                  0
##
   CSI056
                  \cap
                            0 0.00000e+00
                                                                        Λ
   CSI066
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                                  0
##
          Otu07118
                         Otu07119 Otu07120
                                                 Otu07121 Otu07122
                                                                         Otu07123
##
   CSI002
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                  0 0.000000e+00
##
   CSI013
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI023
                  0 0.000000e+00
##
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI034
                    0.000000e+00
                                          0 0.000000e+00
                                                                  0 1.894908e-05
##
   CSI045
                    0.000000e+00
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI056
                    1.959286e-05
                                            0.000000e+00
                                                                  0 0.00000e+00
##
##
   CST066
                  0.000000e+00
                                          0 0.000000e+00
                                                                  0 0.00000e+00
##
           Otu07124 Otu07125
                                  Otu07126 Otu07127 Otu07128 Otu07129 Otu07130
##
  CSI002
                  \cap
                            0 2.724387e-05
                                                    Ω
                                                              0
                                                                        0
                                                                                  Λ
  CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023
                                                              0
                                                                                  0
                  0
                            0 0.00000e+00
                                                    0
                                                                        0
                                                    0
##
   CSI034
                  0
                              0.000000e+00
                                                              0
                                                                                  0
                                                    0
                                                                                  0
##
  CST045
                  0
                            0
                              0.000000e+00
                                                              0
                                                                        0
   CSI056
                  0
                            0
                              0.000000e+00
                                                    0
                                                              0
                                                                                  0
   CSI066
                  0
                            0 0.00000e+00
                                                    Λ
                                                              0
                                                                        0
                                                                                  0
##
                    Otu07132
##
           Otu07131
                              Otu07133 Otu07134
                                                      Otu07135
                                                                Otu07136
                                                                          Otu07137
                                                                                  0
##
   CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
  CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
   CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
   CSI034
                  0
                            0
                                      0
                                                 1.894908e-05
                                                                        0
                                                                                  0
##
   CSI045
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
   CSI056
                            0
                                                                                  0
##
                  0
                                      0
                                                0 0.00000e+00
                                                                        0
                  0
                            0
                                      0
                                                  0.000000e+00
                                                                        0
                                                                                  0
##
   CSI066
          Otu07138 Otu07139 Otu07140 Otu07141
##
                                                      Otu07142 Otu07143
## CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
## CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                0 0.000000e+00
  CSI023
                  0
                            0
                                                                        0
                                      0
                  0
                            0
                                      0
                                                                        0
##
  CSI034
                                                0 0.00000e+00
                            0
                                      0
   CSI045
                  0
                                                0 0.00000e+00
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
##
   CSI056
                  0
##
   CSI066
                  \cap
                            0
                                                0 0.00000e+00
                                                                        0
               Otu07144 Otu07145
                                       Otu07146 Otu07147 Otu07148 Otu07149
##
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
   CSI013 3.195807e-05
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                                                  0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                            0
                                0 0.000000e+00
   CSI045 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
                                0 0.000000e+00
                                                                  0
##
   CSI066 0.000000e+00
                                                                            0
##
               Otu07150 Otu07151 Otu07152 Otu07153
                                                           0tu07154
                                                                         Otu07155
                                                    0 0.000000e+00 1.362194e-05
## CSI002 0.000000e+00
                                0
                                          0
## CSI013 0.000000e+00
                                0
                                          0
                                                    0 6.391614e-05 0.000000e+00
```

```
## CSI023 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI034 0.000000e+00
                                0
                                          0
                                                     1.894908e-05 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
   CSI056 1.959286e-05
                                0
                                          0
                                                     0.000000e+00 0.000000e+00
##
   CSI066 3.833694e-05
                                0
                                          0
                                                    0 0.000000e+00 0.000000e+00
                                      Otu07158 Otu07159 Otu07160 Otu07161
##
          Ot:1107156
                        Otu07157
  CSI002
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                  0
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                           0
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                           0
                                                        0
                                                                  0
                                                                           0
##
   CSI034
                  0 0.000000e+00 0.000000e+00
   CSI045
                  0 0.000000e+00 3.265093e-05
                                                        0
                                                                  0
                                                                           0
                                                                  0
                    0.000000e+00 0.000000e+00
                                                        0
                                                                           0
##
   CSI056
##
   CSI066
                    0.000000e+00 1.916847e-05
                                                        0
                                                                  0
                                                                           0
##
          0tu07162
                        Otu07163 Otu07164 Otu07165 Otu07166 Otu07167 Otu07168
## CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI023
                  0 0.000000e+00
   CSI034
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                                 0
##
  CSI045
                  0.000000e+00
                                                                       0
##
   CSI056
                    0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CST066
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 O
          Otu07169 Otu07170
                                  Otu07171 Otu07172
                                                     Otu07173
                                                               Otu07174
##
## CSI002
                                                    0
                                                             0
                                                                       0
                  \cap
                            0 0.000000e+00
                                                                                 0
                                                             0
                                                                       0
                                                                                 0
##
  CSI013
                  0
                            0 0.00000e+00
                                                    0
                                                                                 0
## CSI023
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
  CSI034
                  0
                            0 1.894908e-05
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI045
                  0
                             0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
                            0
                                                                                 0
##
   CSI056
                  0
                            0 0.00000e+00
                                                    0
                                                             0
                                                                       0
   CSI066
                                                                                 0
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
##
##
          Otu07176
                        Otu07177 Otu07178
                                                Otu07179
                                                              Otu07180 Otu07181
## CSI002
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
##
   CSI013
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                0
   CSI023
                    0.000000e+00
                                          0 2.041025e-05 0.000000e+00
                                                                                0
                                          0 0.000000e+00 0.000000e+00
##
   CSI034
                  0 0.000000e+00
                                                                                0
   CSI045
                    0.000000e+00
                                          0 0.000000e+00 6.530186e-05
                                                                                0
##
                    0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
  CST056
                  0
                                                                                0
##
   CSI066
                    0.000000e+00
                                          0 0.000000e+00 0.000000e+00
##
          0tu07182
                                      Otu07184 Otu07185 Otu07186 Otu07187
                        Ot:1107183
## CSI002
                  0 0.000000000 0.000000e+00
                                                        0
                                                                  0
                                                                           0
  CSI013
                  0 0.0000000000 9.587421e-05
                                                        Λ
                                                                  0
                                                                           0
##
   CSI023
                  0 0.0000000000 0.000000e+00
                                                                  0
                                                                           0
                                                        0
   CSI034
                  0 0.0001136945 0.000000e+00
                                                        0
                                                                  0
                                                                           0
##
                                                                  0
##
   CSI045
                  0 0.0000000000 0.000000e+00
                                                        0
                                                                           0
                                                                  0
##
   CSI056
                  0 0.0000000000 0.000000e+00
                                                        0
                                                                           0
                                                                  0
##
   CSI066
                  0 0.000000000 0.000000e+00
                                                        0
                                                                            0
##
               Otu07188
                             Otu07189 Otu07190
                                                     Otu07191 Otu07192
   CSI002 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                      0
   CSI013 0.0000000000 0.000000e+00
                                              0 3.195807e-05
                                                                      0
   CSI023 0.0000000000 0.000000e+00
                                              0 0.000000e+00
                                                                      0
   CSI034 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                      0
   CSI045 0.0000000000 0.000000e+00
                                                                      0
                                              0.0.000000e+00
   CSI056 0.0000000000 0.000000e+00
                                              0 0.00000e+00
                                                                      0
##
   CSI066 0.0001150108 0.000000e+00
                                              0 0.000000e+00
                                                                      0
##
               Otu07193 Otu07194
                                      Otu07195 Otu07196
                                                              Otu07197 Otu07198
```

```
## CSI002 1.362194e-05
                                0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI013 0.000000e+00
                                                        0 0.000000e+00
                                0 3.195807e-05
                                                                                 0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                         0 0.00000e+00
                                                                                 0
   CSI034 1.894908e-05
                                0 0.000000e+00
                                                        0 3.789817e-05
                                                                                 0
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                 0
   CSI056 0.000000e+00
##
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                 0
   CSI066 0.000000e+00
                                0 1.916847e-05
                                                         0 0.00000e+00
                                                                                 0
                                                                Otu07204 Otu07205
##
           Otu07199 Otu07200 Otu07201 Otu07202 Otu07203
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  O
                            0
                                                0
                                                                                  0
##
  CSI013
                  0
                                      0
                                                          0 3.195807e-05
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
                            0
                                                0
                                                                                  0
##
  CSI034
                  0
                                      0
                                                          0 1.894908e-05
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
                            0
                                                0
##
   CSI056
                  0
                                      0
                                                          0 0.00000e+00
                                                                                  0
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
##
           Otu07206
                    Otu07207
                              Otu07208 Otu07209
                                                  Otu07210
                                                                Otu07211 Otu07212
  CSI002
                                                0
##
                  0
                            0
                                      0
                                                          0 0.00000e+00
                                                                                  0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
  CSI023
                                                0
                                                                                  0
##
                  0
                            0
                                      0
                                                          0 0.00000e+00
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
##
  CSI045
                  Λ
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
   CSI056
                            0
                                                          0 0.000000e+00
                                                                                  0
##
                            0
##
  CSI066
                  0
                                      0
                                                0
                                                          0 1.916847e-05
                                                                                  0
                    Otu07214 Otu07215
                                            0tu07216
##
           0tu07213
                                                           Otu07217 Otu07218
## CSI002
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
  CSI013
                  0
                            0
                                        0.000000e+00 0.000000e+00
                                                                            0
  CSI023
                  0
                            0
                                        0.000000e+00 0.000000e+00
                                                                            0
##
                            0
##
   CSI034
                  0
                                        1.894908e-05 0.000000e+00
                                                                            0
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
   CSI045
##
  CSI056
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
   CSI066
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
           0tu07219
                         Otu07220 Otu07221 Otu07222 Otu07223 Otu07224 Otu07225
##
  CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI013
                  0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
                                          0
                                                    0
   CSI023
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                                  0
##
  CSI034
                    1.894908e-05
                                                                        0
##
   CSI045
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              Λ
                                                                        0
                                                                                  0
                    0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI066
                                                                        0
##
           0tu07226
                         Otu07227 Otu07228 Otu07229
                                                      Otu07230
                                                                Ot:1107231
##
  CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
## CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
   CSI023
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                          0
                                                    0
                                                              0
   CSI034
                    0.000000e+00
                                                                        0
##
                                          0
   CSI045
                  0 0.000000e+00
                                                    0
                                                              0
                                                                        0
   CSI056
                                          0
                                                    0
                                                              0
                                                                        0
##
                  0 0.00000e+00
##
   CSI066
                  0 0.000000e+00
                                          0
                                                              0
                                                                        0
##
               Otu07232 Otu07233
                                       0tu07234
                                                     Otu07235 Otu07236
   CSI002 0.0000000000
                                0 0.000000e+00 0.000000e+00
                                                                       0
   CSI013 0.0000000000
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                0 0.000000e+00 0.000000e+00
                                                                       0
##
   CSI023 0.0000000000
   CSI034 0.0001326436
                                0 0.000000e+00 0.000000e+00
                                                                       0
## CSI045 0.0000000000
                                0 0.000000e+00 0.000000e+00
                                                                       0
## CSI056 0.0000000000
                                0 0.000000e+00 0.000000e+00
                                                                       0
```

```
0 0.000000e+00 0.000000e+00
## CSI066 0.000000000
##
              Ot:1107237
                            Otu07238 Otu07239 Otu07240 Otu07241 Otu07242
## CSI002 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0
## CSI013 0.000000e+00 3.195807e-05
                                                                 0
                                                                          0
                                             0
                                                       0
## CSI023 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
                                                                          0
## CSI034 1.894908e-05 0.000000e+00
                                             0
                                                       Λ
                                                                 0
                                                                          0
## CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0
## CSI056 0.000000e+00 0.000000e+00
                                                                 0
                                             0
                                                       0
## CSI066 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0
##
          Otu07243 Otu07244 Otu07245 Otu07246 Otu07247 Otu07248 Otu07249
## CSI002
                           0
                                     0
                                               0
                                                        0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI034
                  0
                           0
                                     0
                                               0
                                                                           0
## CSI045
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                     0
                                              0
                                                                  0
                                                                           0
## CSI066
          0tu07250
                        Otu07251 Otu07252 Otu07253
                                                       Otu07254
                                                                       0tu07255
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
## CST002
## CSI013
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
## CSI023
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00 0.000000e+00
## CSI034
                  0 0.000000e+00
                                         0
                                                   0 1.894908e-05 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
## CSI045
                  0 0.000000e+00
                                         0
## CSI056
                  0 3.918572e-05
                                         0
                                                   0 0.000000e+00 0.000000e+00
                  0 0.000000e+00
                                         0
## CSI066
                                                   0 0.000000e+00 0.000000e+00
          Otu07256
                        Otu07257 Otu07258 Otu07259 Otu07260 Otu07261 Otu07262
## CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
## CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI023
                                         0
                                                   0
                                                            0
                                                                                0
                  0 0.000000e+00
                                                                      0
## CSI034
                  0 3.789817e-05
                                         0
                                                   0
                                                            0
## CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI056
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                         0
                                                   0
                                                            0
                  0 0.000000e+00
          Otu07263 Otu07264 Otu07265 Otu07266 Otu07267 Otu07268 Otu07269
##
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI023
                  0
                           0
                                     0
                                                                           0
## CSI034
                  Ω
                           0
                                     0
                                               0
                                                        Λ
                                                                  0
                                                                           0
## CSI045
                  0
                           0
                                     0
                                               0
                                                        0
## CSI056
                  Ω
                           0
                                     0
                                               0
                           0
                                     0
                                               0
## CSI066
          Otu07270 Otu07271 Otu07272 Otu07273 Otu07274 Otu07275 Otu07276
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI023
                           0
                  0
                                     0
                                               0
                                                                           0
                                                        0
## CSI034
                  0
                           0
                                     0
                                               0
                                                                  0
                                                                           0
## CSI045
                  0
                           0
                                     0
                                               0
                                                        0
                                                                           0
                  0
                           0
                                     0
                                               0
## CSI056
  CSI066
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
          Otu07277
                        Otu07278 Otu07279 Otu07280 Otu07281 Otu07282 Otu07283
## CSI002
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI013
                  0 0.00000e+00
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI034
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
```

```
## CSI045
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
## CST056
                  0 0.000000e+00
                                          0
                                                    0
                                                                        0
                                                                                  0
                                                              0
                  0 3.833694e-05
##
  CSI066
                                          0
                                                    0
                                                              0
                                                                                  0
##
           Otu07284 Otu07285 Otu07286 Otu07287 Otu07288 Otu07289 Otu07290
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
## CSI023
                  0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
                                                0
                                                                    Λ
##
  CSI056
                  \cap
                                      Λ
                                                                             0
   CSI066
                  0
                            0
                                                          0
##
               Otu07291 Otu07292
                                       Otu07293 Otu07294 Otu07295 Otu07296
##
   CSI002 1.362194e-05
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00
                                                                   0
                                0 0.00000e+00
                                                        0
                                                                            0
  CSI023 0.000000e+00
                                0 0.000000e+00
                                                                   0
                                                        0
                                                                            0
   CSI034 5.684725e-05
                                0 0.00000e+00
                                                        0
                                                                   0
                                                                            0
                                                        0
                                                                   0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                                            0
   CSI056 0.000000e+00
                                0 1.959286e-05
                                                                   0
                                                        0
                                                                  0
##
   CST066 0.000000e+00
                                0 0.000000e+00
                                                                            0
##
           Otu07297 Otu07298
                                  Otu07299 Otu07300 Otu07301 Otu07302 Otu07303
## CSI002
                  Λ
                            0 0.000000e+00
                                                    Ω
                                                              Λ
                                                                        0
                                                                                  0
## CSI013
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023
                                                                                  0
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                  0
                                                    0
## CSI034
                            0 0.000000e+00
                                                              0
## CSI045
                                                    0
                                                                                  0
                  0
                            0 0.000000e+00
                                                              0
  CSI056
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
##
   CSI066
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        Λ
                                                                                  0
           Otu07304 Otu07305 Otu07306 Otu07307 Otu07308 Otu07309
##
                                                                     Otu07310
## CSI002
                  0
                            0
                                                0
                                                          0
                                                                    0
                                      0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI045
                  0
                            0
                                      0
                                                                             0
  CSI056
                            0
##
                  0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
##
   CSI066
           Otu07311 Otu07312
                                  Otu07313 Otu07314 Otu07315 Otu07316 Otu07317
##
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
## CSI013
                  Ω
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                  0
                  Ω
                                                    Ω
                                                              Λ
                                                                                  O
## CSI034
                            0.000000e+00
                                                                        0
                                                    0
                                                              0
  CSI045
                            0 0.00000e+00
## CSI056
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CST066
                  0
                            0 7.667389e-05
                                                    0
                                                                        0
                                                                                  0
                         Otu07319 Otu07320
                                                 Otu07321
##
           Otu07318
                                                               Otu07322 Otu07323
                                          0 0.000000e+00 0.000000e+00
## CSI002
                  0 4.086581e-05
                                                                                 0
## CSI013
                                          0 0.000000e+00 0.000000e+00
                  0 6.391614e-05
                                                                                 0
##
  CSI023
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
  CSI034
                  0 0.00000e+00
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
                  0 0.000000e+00
##
  CSI045
                                          0 0.000000e+00 0.000000e+00
                                                                                 0
##
   CSI056
                  0 0.000000e+00
                                          0 0.000000e+00 0.000000e+00
                                          0 0.000000e+00 9.584236e-05
##
                    0.000000e+00
                  0
##
           0tu07324
                         Otu07325 Otu07326
                                                 Otu07327 Otu07328 Otu07329
                  0 0.000000e+00
## CSI002
                                          0 0.000000e+00
                                                                   0
                                                                            0
## CSI013
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                   0
                                                                            0
```

```
## CSI023
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
                  0 1.894908e-05
                                                                  0
                                                                            0
##
  CSI034
                                          0 1.894908e-05
                    3.265093e-05
                                          0 0.00000e+00
##
  CSI045
                                                                  0
                                                                            0
  CSI056
                    0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
##
   CST066
                    0.000000e+00
                                            0.000000e+00
                                                                  0
                                                                            0
                    Otu07331
                                                               Otu07334
##
          Otu07330
                                   0tu07332
                                                 Otu07333
                            0 0.000000e+00 1.362194e-05 0.000000e+00
## CSI002
                  0
## CSI013
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI023
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
##
  CSI034
                              1.894908e-05 0.000000e+00 0.000000e+00
   CSI045
                  0
                              0.000000e+00 0.000000e+00 1.306037e-04
                              0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI056
                  0
##
   CSI066
                  0
                            0 0.000000e+00 0.000000e+00 0.000000e+00
               Otu07335 Otu07336 Otu07337
##
                                                 Otu07338 Otu07339 Otu07340
   CSI002 0.000000e+00
                                0
                                                                  0
                                                                            0
##
                                          0 0.00000e+00
   CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0 0.00000e+00
   CSI034 0.000000e+00
                                0
                                            0.000000e+00
                                                                  0
                                                                            0
   CSI045 0.000000e+00
                                0
                                                                  0
                                                                            0
                                          0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                            0.000000e+00
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
           Otu07341 Otu07342 Otu07343 Otu07344 Otu07345
                                                                Otu07346 Otu07347
##
## CSI002
                            0
                                                0
                  0
                                      0
                                                          0 2.724387e-05
                                                                                  0
   CSI013
                            0
                                                0
##
                  0
                                      0
                                                          0 0.00000e+00
                                                                                  0
##
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
  CSI045
                  0
                            0
                                      0
                                                0
                                                           0.000000e+00
                                                                                  0
##
                            0
                                                0
##
   CSI056
                  0
                                      0
                                                           1.959286e-05
                                                                                  0
                            0
                                                                                  0
   CSI066
                  0
                                      0
                                                0
                                                          0 0.000000e+00
##
##
          Otu07348
                    Otu07349
                              Otu07350 Otu07351 Otu07352
                                                                Otu07353 Otu07354
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                           0.000000e+00
                                                                                  0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
                  0
                            0
                                                0
                                                                                  0
##
  CSI034
                                      0
                                                           0.000000e+00
   CSI045
                  0
                            0
                                      0
                                                0
                                                            0.000000e+00
                                                                                  0
##
                                                          0 0.000000e+00
                  0
                            0
                                                0
                                                                                  0
##
  CST056
                                      0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
##
          Otu07355
                    Otu07356
                                   Otu07357 Otu07358 Otu07359
                                                                     Otu07360
## CSI002
                  0
                              0.000000e+00
                                                    0
                                                              0 4.086581e-05
                            0
                  0
                                                    0
##
  CSI013
                            Λ
                              0.000000e+00
                                                              0.000000e+00
  CSI023
                                                    0
                  0
                              0.000000e+00
                                                              0 0.000000e+00
  CSI034
                  0
                                                    0
##
                            0
                              0.000000e+00
                                                                1.894908e-05
##
   CSI045
                  0
                              0.000000e+00
                                                    0
                                                              Ω
                                                                0.000000e+00
                                                    0
##
   CSI056
                  0
                              0.000000e+00
                                                              0 3.918572e-05
                                                    0
##
   CSI066
                  0
                            0 0.00000e+00
                                                              0 0.00000e+00
                              Otu07363 Otu07364 Otu07365 Otu07366
          Otu07361
                    Otu07362
##
                                                                          Otu07367
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
                            0
                                                0
##
   CSI013
                  0
                                      0
                                                          0
                                                                   0 0.00000e+00
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.00000e+00
                  0
                            0
                                      0
                                                0
                                                          0
##
   CSI045
                                                                   0 0.00000e+00
##
  CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
  CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
##
               Otu07368 Otu07369 Otu07370 Otu07371
                                                          Otu07372 Otu07373
```

```
## CSI002 0.000000e+00
                               0
                                                   0 0.00000e+00
                                                                          0
  CSI013 0.000000e+00
                                         0
                                                    0.000000e+00
                                                                          0
                               0
   CSI023 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
  CSI034 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0
                                                    0.000000e+00
                                                                          0
   CSI056 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                                                          0
                               0
   CSI066 1.916847e-05
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
##
              Otu07374 Otu07375 Otu07376
                                               Otu07377 Otu07378
                                                                       Otu07379
   CSI002 2.724387e-05
                               0
                                         0 0.00000e+00
                                                                0 0.000000e+00
                               0
   CSI013 0.000000e+00
                                         0 0.000000e+00
                                                                0 0.00000e+00
   CSI023 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI034 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0 0.00000e+00
   CSI045 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
                               0
   CSI056 0.000000e+00
                                         0 0.00000e+00
                                                                0 1.959286e-05
   CSI066 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0 0.000000e+00
##
              Otu07380 Otu07381
                                      Otu07382 Otu07383 Otu07384
                                                                       Otu07385
   CSI002 0.000000e+00
                                                       0
##
                               0 0.00000e+00
                                                                0 0.00000e+00
   CSI013 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
   CSI023 0.000000e+00
                               0 0.00000e+00
                                                       0
                                                                0.000000e+00
   CSI034 0.000000e+00
                               0 9.474542e-05
                                                       0
                                                                0 0.00000e+00
   CSI045 0.000000e+00
                               0 0.00000e+00
                                                       Λ
                                                                0 3.265093e-05
   CSI056 0.000000e+00
                               0 0.000000e+00
                                                       0
                                                                0 0.000000e+00
  CSI066 9.584236e-05
##
                               0 0.00000e+00
                                                       0
                                                                0 0.00000e+00
          Otu07386 Otu07387
                                 Otu07388 Otu07389 Otu07390
##
                                                                   Otu07391
## CSI002
                  0
                           0 0.000000e+00
                                                  0
                                                            0 0.00000e+00
  CSI013
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
## CSI023
                  0
                           0 0.00000e+00
                                                   0
                                                              0.000000e+00
                                                   0
##
   CSI034
                  0
                           0 0.00000e+00
                                                            0 0.00000e+00
   CSI045
                                                            0 9.795279e-05
                  0
                                                   0
##
                           0 0.00000e+00
  CSI056
                  0
                           0 5.877858e-05
                                                   0
                                                            0 0.00000e+00
##
   CSI066
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.00000e+00
##
          0tu07392
                        Otu07393 Otu07394 Otu07395 Otu07396
                                                              Otu07397 Otu07398
##
  CSI002
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
  CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
   CSI023
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
                                         0
                                                   0
                                                            0
                                                                               0
##
  CST034
                  0 7.579634e-05
                                                                      0
##
   CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
  CSI056
                  0 0.000000e+00
                                         0
                                                   0
                                                            Λ
                                                                      0
                                                                               0
                  0 0.000000e+00
                                         0
                                                   0
                                                                               0
##
   CST066
##
              Otu07399 Otu07400 Otu07401
                                               0tu07402
                                                             Ot1107403 Ot1107404
  CSI002 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
  CSI013 0.000000e+00
                               0
                                         0 3.195807e-05 0.000000e+00
                                                                              0
   CSI023 0.000000e+00
                               0
                                         0 0.000000e+00 0.000000e+00
                                                                              0
                               0
   CSI034 0.000000e+00
                                         0 0.000000e+00 3.789817e-05
                                                                              0
                               0
                                         0 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                                                              0
                                         0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                               0
                                                                              0
##
   CSI066 3.833694e-05
                                         0 0.000000e+00 0.000000e+00
                                 Otu07407 Otu07408 Otu07409 Otu07410 Otu07411
##
          Otu07405 Otu07406
## CSI002
                  0
                           0 1.362194e-05
                                                   0
                                                            0
                                                                      0
                                                                               0
##
  CSI013
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
                  0
                                                   0
                                                            0
                                                                      0
                                                                               0
##
  CSI023
                           0 4.082049e-05
## CSI034
                  0
                           0 0.00000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI045
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI056
                  0
                           0 0.000000e+00
                                                   0
                                                            0
                                                                      0
                                                                               0
```

##	CSI066	0	0	0.00	00000	e+00		0		0	(	0 0
##		Otu07412	Otu07413	Otu	07414	Otu	07415	Otu(	7416		Otu0741	7 Otu07418
##	CSI002	0	0		0		0		0	0.00	0000e+0	0 0
##	CSI013	0	0		0		0		0	0.00	0000e+0	0 0
##	CSI023	0	0		0		0		0	0.00	0000e+0	0 0
##	CSI034	0	0		0		0		0	0.00	0000e+0	0 0
##	CSI045	0	0		0		0		0	0.00	0000e+0	0 0
##	CSI056	0	0		0		0		0	0.00	0000e+0	0 0
##	CSI066	0	0		0		0		0	1.91	.6847e-0	5 0
##		Otu07419	Otu07420	Otu	07421		0tu07	422	Otu07	7423	Otu0742	4 Otu07425
##	CSI002	0	0		0	0.0	0000e	+00		0	(	0 0
##	CSI013	0	0		0		0000e			0	(	0
##	CSI023	0	0		0		0000e			0	(	0
##	CSI034	0	0		0		39817e			0	(	0
##	CSI045	0	0		0		0000e			0		0
##	CSI056	0	0		0		00000e			0		0
##	CSI066	0	0		0		00000e			0		0 0
##	aa tooo		Otu07427	Utu(		Otu	07429	Utu(		Otu		Otu07432
##	CSI002	0	0		0		0		0			000000e+00
##	CSI013 CSI023	0	0		0		0		0			000000e+00
##	CS1023	0	0		0		0		0			000000e+00 000000e+00
##	CSI034	0	0		0		0		0			000000e+00
##	CSI045	0	0		0		0		0			000000e+00
##	CSI066	0	0		0		0		0			000000e+00
##	CDICCO	Otu07433	-	7434	•	7435	Otu07	436	-	7437		07438
##	CSI002		0.000000		oudo	0	oodor	0	oudoi		0.00000	
##	CSI013	0	0.0000000			0		0		0	6.391614	
##	CSI023	0	0.000000			0		0		0	0.00000	
##	CSI034	0	0.000000	e+00		0		0		0	1.894908	
##	CSI045	0	0.0000006	e+00		0		0		0	0.00000	De+00
##	CSI056	0	3.918572	e-05		0		0		0	0.00000	De+00
##	CSI066	0	0.0000000	e+00		0		0		0	0.00000	De+00
##		Otu0	7439 Otu0	7440	Otu0	7441	0tu07	442	Otu07	7443	Otu0744	4 Otu07445
##	CSI002	0.0000006	e+00	0		0		0		0	(	0 0
##	CSI013	0.0000006	e+00	0		0		0		0	(	0 0
##		0.000000		0		0		0		0	(	0 0
		0.000000		0		0		0		0	(	0 0
		0.000000		0		0		0		0	(	0
##		0.000000		0		0		0		0		0
##	CSI066	5.750542		0		0		0		0		0 0
##	aa tooo	Otu07446			Otu0		Otu07		Otu07			1 Otu07452
	CSI002		0.000000			0		0		0		0
##	CSI013		6.391614			0		0		0		0
##	CSI023 CSI034		0.000000			0		0		0		0
##	CS1034		0.0000000			0		0		0		0 0
##	CSI045		0.0000000			0		0		0		) 0
##	CS1056		0.0000000			0		0		0		0
##	CDIOOO				U+110'	•	<u></u> Ω+11Ω7		<u> </u>	-		0 Otu07459
	CSTOO2	0.000000		0	Judo	0	55401	0	Jouvi	0		0 00007439
		3.195807		0		0		0		0		0
		0.0000000		0		0		0		0		0
		0.000000		0		0		0		0	(	0

```
## CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
          Otu07460 Otu07461 Otu07462 Otu07463 Otu07464 Otu07465 Otu07466
## CST002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI023
                            0
                                                                   0
                  0
                                      0
                                               0
                                                         0
                                                                             0
## CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
                                               0
                                                         Λ
                                                                   Λ
##
  CSI056
                  0
                                                                             0
   CSI066
                  0
                            0
                                      0
                                               0
                                                                             0
          Otu07467 Otu07468 Otu07469
##
                                            Otu07470
                                                          Otu07471 Otu07472
##
  CSI002
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
## CSI013
                            0
                  0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
## CSI023
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
                  0
##
  CSI034
                  0
                            0
                                      0 3.789817e-05 0.000000e+00
                                                                            0
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                            0
##
  CSI045
##
   CSI056
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                  0
                            0
                                      0 0.000000e+00 1.916847e-05
                                                                            0
##
   CST066
##
          Otu07473 Otu07474 Otu07475
                                            Otu07476 Otu07477 Otu07478 Otu07479
## CSI002
                  Ω
                            0
                                      0 0.00000e+00
                                                             Λ
                                                                       0
                                                                                 Λ
## CSI013
                            0
                                      0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI023
                            0
                                                             0
                                                                                 0
                  0
                                      0.000000e+00
                                                                       0
                  0
                            0
                                                             0
## CSI034
                                      0 1.894908e-05
                                                                                 0
## CSI045
                            0
                                                             Λ
                                                                       0
                                                                                 O
                  0
                                      0 0.00000e+00
   CSI056
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                                 0
##
   CSI066
                  0
                            0
                                      0 0.00000e+00
                                                             0
                                                                       Λ
                                                                                 0
          Otu07480 Otu07481 Otu07482 Otu07483 Otu07484 Otu07485 Otu07486
##
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CST034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
   CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
  CSI056
                            0
                                                         0
##
                  0
                                      0
                                               0
                                                                   0
                                                                             0
   CSI066
                  0
                            0
                                      0
                                               0
                                                                             0
##
          Otu07487 Otu07488
                                  Otu07489 Otu07490
                                                          Otu07491
                                                                        0tu07492
##
## CSI002
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI013
                  Ω
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI023
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
                            0 0.000000e+00
                  Ω
                                                    0 0.000000e+00 0.000000e+00
## CSI034
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
   CSI045
  CSI056
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
##
                            0 0.000000e+00
##
   CSI066
                  \cap
                                                    0 0.000000e+00 0.000000e+00
                        Otu07494
                                       Otu07495 Otu07496 Otu07497
##
          0tu07493
                                                                        Otu07498
                  0 1.362194e-05 0.000000e+00
  CSI002
                                                        0
                                                                  0 0.00000e+00
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI034
                  0 0.000000e+00 7.579634e-05
                                                        0
                                                                  0 1.894908e-05
##
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0 0.000000e+00
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
                                                        0
##
                                                                  0.0.000000e+00
##
          Otu07499 Otu07500 Otu07501 Otu07502 Otu07503 Otu07504 Otu07505
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
```

##	CSI023	^	0	0	0	0	0		0
	CSI023	0	0	0	0	0	0		0
	CSI045	0	0	0	0	0	0		0
##	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##	CDICCO	-	Otu07507	-	Otu07509	•	Otu07511	Ω±11C	•
	CSI002	0	0	0	0	0 0 0 0 0	0	ocuo	0
##	CSI002	0	0	0	0	0	0		0
##	CSI013	0	0	0	0	0	0		0
##	CSI023	0	0	0	0	0	0		0
##	CSI045	0	0	0	0	0	0		0
##	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##	ODIOOO	·	·	Otu07515	ū	Otu07517	•	Ω±11C	•
##	CSI002	0	0	0	0	0	0	oouo	0
##	CSI013	0	0	0	0	0	0		0
##	CSI023	0	0	0	0	0	0		0
	CSI034	0	0	0	0	0	0		0
	CSI045	0	0	0	0	0	0		0
	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##		Otu07520	Otu07521	Otu07522	Otu07523	Otu07524	Otu07525	OtuC	7526
##	CSI002	0	0	0	0	0	0		0
##	CSI013	0	0	0	0	0	0		0
##	CSI023	0	0	0	0	0	0		0
##	CSI034	0	0	0	0	0	0		0
##	CSI045	0	0	0	0	0	0		0
##	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##		Otu07527	Otu07528	Otu07529	Otu07530	Otu07	7531 Otu0'	7532	Otu07533
##	CSI002	0	0	0	0	0.0000006	e+00	0	0
##	CSI013	0	0	0	0	0.0000006	e+00	0	0
##	CSI023	0	0	0	0	0.0000006	e+00	0	0
##	CSI034	0	0	0	0	0.0000006	e+00	0	0
##	CSI045	0	0	0	0	0.0000006		0	0
##	CSI056	0	0	0	0	0.0000006	e+00	0	0
##	CSI066	0	0	0	0	0.0000006		0	0
##				Otu07536					Otu07540
	CSI002	0	0	0	0		0.000000		0
	CSI013	0	0	0	0		0.000000		0
	CSI023	0	0	0	0		0.000000		0
	CSI034	0	0	0	0		0.000000		0
	CSI045	0	0	0	0		0.000000		0
	CSI056 CSI066	0	0	0	0		0.000000		0
##	CSTOOD			Otu07543					-
	CSI002	00007541	00007542	00007545	00007544	00007545	00007546	Utuo	0
	CS1002	0	0	0	0	0	0		0
	CSI013	0	0	0	0	0	0		0
	CS1023	0	0	0	0	0	0		0
	CSI034	0	0	0	0	0	0		0
	CS1045	0	0	0	0	0	0		0
	CSI066	0	0	0	0	0	0		0
##	251000		-	Otu07550	-	-	-	7553	Otu07554
11 TT		30401040	30401040	5540,000	5540,001	50401002	Judo	. 555	3 3 4 0 1 0 0 <del>1</del>

```
## CSI002
                            0
                                                          0 1.362194e-05
                                                                                  0
  CSI013
                  0
                                                          0 0.000000e+00
                                                                                  0
##
                            0
                                      0
                                                0
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  O
##
   CSI056
                  0
                            0
                                                          0 0.000000e+00
##
   CSI066
                                      0
                                                0
##
           Otu07555 Otu07556 Otu07557
                                             Otu07558 Otu07559 Otu07560 Otu07561
## CSI002
                  0
                            0
                                      0 1.362194e-05
                                                              0
                                                                        0
                                                                                  O
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI013
                  0
  CSI023
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI034
                  0
                            0
                                                              0
                                                                        0
##
                                        0.000000e+00
##
   CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                            0
                                                              0
                                                                                  0
##
   CSI056
                  0
                                      0 0.00000e+00
                                                                        0
##
   CSI066
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
               Otu07562 Otu07563 Otu07564 Otu07565 Otu07566
                                                                Otu07567
                                                                          Otu07568
   CSI002 0.000000e+00
                                 0
##
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI023 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
                                 0
                                                                        0
   CSI034 5.684725e-05
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI045 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI056 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                                  0
  CSI066 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               Otu07569 Otu07570 Otu07571 Otu07572 Otu07573
                                                                Otu07574
                                                                          0tu07575
## CSI002 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI023 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
                                          0
                                                    0
                                                              0
                                                                                  0
   CSI034 5.684725e-05
                                                                        0
                                 0
                                                               0
                                                                                  0
   CSI045 0.000000e+00
                                          0
                                                    0
                                                                        0
   CSI056 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI066 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               Otu07576 Otu07577 Otu07578 Otu07579
                                                      Otu07580
                                                                Otu07581
   CSI002 1.362194e-05
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI023 0.000000e+00
                                 0
                                          0
                                                    0
                                                               0
                                                                        0
   CSI034 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI045 0.000000e+00
                                 0
                                          0
                                                    0
                                                               0
                                                                        0
   CSI056 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI066 0.000000e+00
                                 0
                                          0
                                                    0
                                                               0
##
##
               Otu07582 Otu07583 Otu07584
                                                 Otu07585 Otu07586
                                                                         0t.1107587
  CSI002 0.0000000000
                                 0
                                          0 0.00000e+00
                                                                   0 0.00000e+00
  CSI013 0.0001597904
                                 0
                                          0 6.391614e-05
                                                                   0 0.00000e+00
   CSI023 0.0000000000
                                 0
                                          0 0.00000e+00
                                                                   0 0.00000e+00
                                 0
   CSI034 0.0000000000
                                            0.000000e+00
                                                                   0 0.000000e+00
                                 0
   CSI045 0.0000000000
                                          0 0.00000e+00
                                                                   0 0.00000e+00
   CSI056 0.0000000000
                                 0
                                            0.000000e+00
                                          0
                                                                   0 0.00000e+00
##
   CSI066 0.0000000000
                                          0 0.00000e+00
                                                                   0 0.00000e+00
##
           Otu07588 Otu07589
                                   Otu07590 Otu07591
                                                           Otu07592 Otu07593
                                                    0 0.000000e+00
## CSI002
                  0
                            0 1.362194e-05
                                                                             0
##
   CSI013
                  0
                              0.000000e+00
                                                    0 0.00000e+00
                                                                             0
                  0
                              0.000000e+00
                                                                             0
##
   CSI023
                                                    0 0.00000e+00
## CSI034
                  0
                            0 0.00000e+00
                                                    0 0.00000e+00
                                                                             0
                            0 0.000000e+00
                                                    0 0.000000e+00
## CSI045
                  0
                                                                             0
## CSI056
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                             0
```

```
## CSI066
                 0
                          0 0.000000e+00
                                                   0 0.00000e+00
##
          0t.1107594
                        Otu07595 Otu07596 Otu07597 Otu07598 Otu07599
## CSI002
                  0 0.00000e+00
                                        0
                                                  0
                                                            0
## CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            Λ
                                                                      0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
## CSI034
                  0 0.000000e+00
                                         0
                                                   Ω
                                                            Λ
                                                                      0
                                         0
                                                   0
                                                            0
## CSI045
                  0 6.530186e-05
## CSI056
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
##
  CSI066
                  0 0.000000e+00
                                         Λ
                                                   Ω
                                                            0
##
              Otu07600 Otu07601 Otu07602 Otu07603 Otu07604 Otu07605 Otu07606
## CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
## CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                               0
                                         0
                                                   0
                                                            0
## CSI034 3.789817e-05
                                                                      0
                                                                                0
## CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
##
              Otu07607 Otu07608 Otu07609 Otu07610 Otu07611 Otu07612 Otu07613
## CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI034 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
## CSI045 0.000000e+00
                                         0
                                                   0
                                                            Λ
                                                                               Λ
                               0
                                                                      0
## CSI056 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                         0
## CSI066 0.000000e+00
                               0
                                                   0
                                                            0
          Otu07614
                      Otu07615 Otu07616 Otu07617 Otu07618 Otu07619 Otu07620
## CSI002
                  0 1.362194e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI013
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                                            0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                                      0
                                                                                0
## CSI034
                  0 1.894908e-05
                                         0
                                                   0
                                                            0
                                                                               0
## CSI045
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI056
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
                  0 0.00000e+00
                                         0
                                                   0
                                                            0
                                                                      0
          Otu07621 Otu07622
                               Otu07623
                                               Otu07624 Otu07625 Otu07626
##
## CSI002
                  0
                           0 1.362194e-05 0.000000e+00
                                                                 0
                                                                          0
## CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
## CSI034
                  Λ
                           0 0.000000e+00 0.000000e+00
                                                                 Ω
                                                                          0
## CSI045
                  0
                           0 3.265093e-05 0.000000e+00
                                                                 0
                                                                          0
## CSI056
                  Ω
                           0 0.000000e+00 0.000000e+00
                                                                 Ω
                           0 0.000000e+00 0.000000e+00
## CST066
##
          Otu07627 Otu07628 Otu07629
                                           Otu07630
                                                         Otu07631 Otu07632
                                     0 0.000000e+00 0.000000e+00
## CSI002
                  0
                           0
                                                                          0
## CSI013
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          Λ
                           0
                                     0 0.000000e+00 0.000000e+00
## CSI023
                  0
                                     0 1.894908e-05 0.000000e+00
                           0
## CSI034
                  0
                                                                          0
                           0
## CSI045
                  0
                                     0 0.000000e+00 0.000000e+00
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
## CSI056
   CSI066
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
          Otu07633
                        Otu07634 Otu07635 Otu07636 Otu07637 Otu07638 Otu07639
## CSI002
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
                                         0
                                                   0
                                                            0
                                                                               0
## CSI013
                  0 0.000000e+00
                                                                      0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
## CSI034
                  0 7.579634e-05
                                         0
                                                   0
                                                            0
                                                                      0
                                                                               0
```

```
## CSI045
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
## CST056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI066
                  0 0.00000e+00
                                          0
                                                     0
                                                                        0
                                                                                  0
                                                                 Otu07645 Otu07646
##
           Otu07640 Otu07641 Otu07642 Otu07643 Otu07644
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
## CSI013
                  0
                            0
                                      0
                                                0
                                                                                  0
                                                          0 0.00000e+00
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0 1.306037e-04
                                                                                  0
                            0
                                                0
                                                                                  0
## CSI056
                  0
                                      0
                                                          0 0.00000e+00
   CSI066
                  0
                            0
                                                0
                                                          0 0.00000e+00
                                                                                  0
##
                             Otu07648 Otu07649 Otu07650 Otu07651 Otu07652
               Otu07647
  CSI002 0.0000000000 0.0000000000
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI013 0.0000000000 0.0000000000
                                                                   0
                                               0
                                                         0
                                                                             0
  CSI023 0.0000000000 0.0000000000
                                                                   0
                                                                             0
                                               0
                                                         0
   CSI034 0.0000000000 0.0000000000
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI045 0.0000000000 0.0000000000
                                               0
                                                                   0
                                                         0
                                                                             0
   CSI056 0.0000000000 0.0000000000
                                               0
                                                                   0
   CSI066 0.0000000000 0.0000000000
                                                                   0
##
                                               0
                                                         0
                                                                             0
##
           Otu07653 Otu07654
                                   0tu07655
                                                 Otu07656 Otu07657 Otu07658
## CSI002
                  Λ
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
## CSI013
                            0 0.000000e+00 0.000000e+00
                                                                   0
## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
## CSI034
                                                                             0
                  0
                                                                   Ω
## CSI045
                            0 0.000000e+00 0.000000e+00
                                                                             0
   CSI056
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   Ω
##
   CSI066
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             Λ
               Otu07659 Otu07660 Otu07661 Otu07662 Otu07663 Otu07664 Otu07665
##
  CSI002 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
  CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                  0
## CSI023 0.000000e+00
                                 0
                                          0
                                                     0
                                                               0
                                                                        0
                                                                                  0
   CSI034 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                  0
   CSI056 0.000000e+00
                                          0
                                                     0
                                                              0
                                                                                  0
                                 0
                                                                        0
   CSI066 0.000000e+00
                                 0
                                          0
                                                     0
                                                              0
                                                                        0
                                                                                  0
           Otu07666 Otu07667 Otu07668 Otu07669 Otu07670 Otu07671 Otu07672
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                                0
                                                          0
                                      0
                                                                              0
                  Ω
                            0
                                                0
                                                          0
## CSI034
                                      0
                                                                    0
                                                                              0
                            0
                                                0
  CSI045
                  0
                                      0
                                                                              0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
           Otu07673 Otu07674 Otu07675 Otu07676 Otu07677 Otu07678
##
                                                                      Otu07679
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CST066
                  0
               Otu07680 Otu07681 Otu07682 Otu07683 Otu07684 Otu07685 Otu07686
##
## CSI002 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI013 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
```

```
## CSI023 0.000000e+00
                                0
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI034 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                 0
                                                                       0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                                                                 0
  CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                             Λ
                                                                       0
##
   CSI066 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
          Otu07687 Otu07688
                                                Otu07690 Otu07691 Otu07692
##
                                  Otu07689
## CSI002
                  0
                            0 1.362194e-05 1.362194e-05
                                                                  0
## CSI013
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
  CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                  0
                                                                  Λ
                                                                            0
##
  CSI034
                            0 0.000000e+00 0.000000e+00
   CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
                  0
                            0 0.000000e+00 0.000000e+00
                                                                            0
##
   CSI056
##
   CSI066
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                         Otu07694 Otu07695 Otu07696 Otu07697 Otu07698
##
          Otu07693
  CSI002
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
##
##
   CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                          0
                                                             0
                                                                       0
##
   CSI023
                  0 0.00000e+00
                                                    0
   CSI034
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                          0
                                                    0
                                                             0
##
   CST045
                  0 0.00000e+00
                                                                       0
##
   CSI056
                  0 1.959286e-05
                                          0
                                                    0
                                                             0
                                                                       0
##
   CST066
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
##
               Otu07699
                             Otu07700 Otu07701 Otu07702 Otu07703 Otu07704
  CSI002 1.362194e-05 1.362194e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0
   CSI034 0.000000e+00 1.894908e-05
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                                                  0
                                              0
                                                        0
                                                                            0
                                              0
                                                                  0
   CSI066 0.000000e+00 0.000000e+00
                                                        0
##
          Otu07705 Otu07706 Otu07707 Otu07708 Otu07709
                                                               Otu07710
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0 1.362194e-05
##
   CSI013
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
##
   CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                  0
                            0
                                               0
##
  CSI034
                                     0
                                                         0 0.00000e+00
   CSI045
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
##
                            0
                                     0
                                               0
                                                         0 0.000000e+00
##
  CST056
                  0
##
   CSI066
                            0
                                      0
                                                         0 0.00000e+00
##
               Otu07711 Otu07712 Otu07713
                                                Otu07714 Otu07715
                                                                        Otu07716
   CSI002 0.000000e+00
                                0
                                          0 2.724387e-05
                                                                  0 1.362194e-05
   CSI013 0.000000e+00
                                0
                                                                  0 0.000000e+00
                                          0 0.00000e+00
   CSI023 0.000000e+00
                                                                  0 0.000000e+00
                                0
                                          0 0.00000e+00
   CSI034 0.000000e+00
                                0
                                          0 3.789817e-05
                                                                  0 5.684725e-05
   CSI045 6.530186e-05
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0 0.00000e+00
                                          0 0.000000e+00
   CSI066 0.000000e+00
                                0
                                                                  0 0.00000e+00
           Otu07717
                         Otu07718 Otu07719 Otu07720 Otu07721 Otu07722 Otu07723
##
##
  CSI002
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
   CSI013
                                                                       0
                                                                                 0
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
   CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI034
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
   CSI045
                  0.0.000000e+00
##
  CSI056
                  0 0.00000e+00
                                          0
                                                    0
                                                             0
                                                                                 0
## CSI066
                  0 0.000000e+00
                                          0
                                                    0
                                                             0
                                                                                 0
##
          Otu07724 Otu07725 Otu07726 Otu07727 Otu07728 Otu07729
                                                                         Otu07730
```

```
## CSI002
                  0
                            0
                                                                   0 0.00000e+00
## CSI013
                            0
                                                         0
                                                                   0 0.000000e+00
                  0
                                      0
                                               0
  CSI023
                                                                   0 0.000000e+00
##
                  0
                            0
                                      0
                                                         0
  CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.000000e+00
##
##
  CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0 0.000000e+00
                            0
                                               0
                                                         0
##
  CSI056
                  0
                                      0
                                                                   0 0.000000e+00
                            0
##
  CSI066
                                               0
                                                                   0 0.00000e+00
                                                               Otu07735 Otu07736
               Otu07731 Otu07732
##
                                       Otu07733 Otu07734
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0 1.362194e-05
                                                                                0
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI034 1.894908e-05
                                0 3.789817e-05
                                                        0 0.00000e+00
                                                                                0
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
##
           Otu07737 Otu07738
                                  Otu07739 Otu07740 Otu07741 Otu07742 Otu07743
## CSI002
                                                    0
                  0
                            0 0.00000e+00
                                                             0
                                                                       0
                                                                                 0
##
  CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
                            0 0.000000e+00
  CSI023
                                                             0
                                                                                 0
##
                  0
                                                    0
                                                                       0
## CSI034
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
##
  CSI045
                  0
                              0.000000e+00
                                                    0
                                                             0
                                                                       0
                                                                                 0
  CSI056
                             0.000000e+00
                                                    0
                                                             0
                                                                                 0
                  Ω
                            0 0.000000e+00
                                                             Λ
                                                                                 0
##
  CST066
                                                    0
                                                                       0
          Otu07744 Otu07745
##
                              Otu07746
                                            Otu07747 Otu07748 Otu07749
                                     0 0.000000000
## CSI002
                  0
                            0
                                                             0
                                                                       0
  CSI013
                  0
                            0
                                      0.0000000000
                                                             0
                                                                       0
## CSI023
                  0
                            0
                                     0 0.000000000
                                                             0
                                                                       0
                            0
                                                             0
##
   CSI034
                  0
                                      0 0.0000000000
                                                                       0
                                                             0
   CSI045
                  0
                            0
                                      0 0.0000000000
                                                                       0
##
##
  CSI056
                  0
                            0
                                      0 0.000000000
                                                             0
                                                                       0
##
  CSI066
                  0
                            0
                                      0 0.000000000
                                                             0
                                                                       0
##
               Otu07750 Otu07751
                                       Otu07752 Otu07753 Otu07754 Otu07755
##
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                                  0
                                                                            0
                                                        0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI034 0.000000e+00
                                                        0
                                                                  0
                                0 0.00000e+00
                                                                            0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
  CSI056 0.000000e+00
                                0 0.000000e+00
                                                        Λ
                                                                  0
                                                                            0
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                                  0
##
          Otu07756 Otu07757
                                  Otu07758 Otu07759
                                                          Otu07760
                                                                        Ot:1107761
                                                    0 4.086581e-05 0.000000e+00
## CSI002
                  0
                            0 0.00000e+00
## CSI013
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
  CSI023
                  0
                              0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
  CSI034
                  0
                             0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI045
                  0
                            0 0.00000e+00
## CSI056
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
                  0
##
  CSI066
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
           Otu07762 Otu07763 Otu07764 Otu07765 Otu07766 Otu07767 Otu07768
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
##
  CSI023
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
```

```
## CSI066
                  0
                            0
                                      0
##
          Otu07769 Otu07770 Otu07771 Otu07772 Otu07773 Otu07774 Otu07775
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
                            0
                                                0
## CSI034
                  0
                                      0
                                                          0
                                                                   0
                                                                             0
                            0
## CSI045
                  0
                                                0
                                                          0
                                                                             0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI066
                  0
                            0
                                                0
                                                          0
                                                                             0
##
               Otu07776 Otu07777
                                       Otu07778 Otu07779 Otu07780 Otu07781
  CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
  CSI013 0.000000e+00
                                0 0.000000e+00
                                                                  0
                                                                            0
                                                        0
   CSI023 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI034 0.000000e+00
                                                                  0
                                0 0.00000e+00
                                                        0
                                                                            0
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                                  0
                                                        0
                                                                            0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                        0
                                                                  0
   CSI066 1.916847e-05
                                0 0.00000e+00
##
           Otu07782 Otu07783
                                  Otu07784 Otu07785 Otu07786 Otu07787
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
## CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
##
  CSI023
                  Ω
                            0 2.041025e-05
                                                    Λ
                                                              0
                                                                        0
## CSI034
                  0
                            0 0.000000e+00
                                                              0
## CSI045
                  Ω
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                              0.000000e+00
## CSI056
                                                              0
## CSI066
                            0 0.000000e+00
                                                    0
                                                              \cap
                                                                        0
##
               Otu07788 Otu07789 Otu07790
                                                 Otu07791 Otu07792 Otu07793
## CSI002 0.0000000000
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
   CSI013 0.0000000000
                                0
                                          0 0.00000e+00
                                                                            0
   CSI023 0.0000000000
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
   CSI034 0.0001136945
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
   CSI045 0.0000000000
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI056 0.0000000000
                                0
                                          0 0.00000e+00
                                                                  0
   CSI066 0.0000000000
                                0
                                          0 0.00000e+00
                                                                  0
##
          Otu07794 Otu07795 Otu07796 Otu07797 Otu07798 Otu07799 Otu07800
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI013
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
                  0
## CSI023
                  0
                            0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI034
                  Ω
                            0
                                                0
                                                          0
                                                                   0
                                                                             0
                                      0
                  0
                            0
  CSI045
                                                                             0
                            0
                                                0
##
  CSI056
                                      0
                                                                             0
   CSI066
##
               Otu07801 Otu07802 Otu07803 Otu07804
                                                          Ot:107805 Ot:107806
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0 3.195807e-05
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
   CSI034 7.579634e-05
                                0
                                          0
                                                                            0
                                                    0 0.00000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                      0.000000e+00
                                                                            0
                                          0
   CSI056 0.000000e+00
                                                      0.000000e+00
   CSI066 0.000000e+00
                                0
                                                    0 0.000000e+00
                                                                            0
##
           Otu07807 Otu07808 Otu07809
                                            Otu07810 Otu07811 Otu07812 Otu07813
                                      0 0.000000e+00
## CSI002
                  0
                            0
                                                              0
                                                                        0
                                                                                  0
## CSI013
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
## CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
## CSI034
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
```

```
## CSI045
                  0
                            0
                                     0 0.000000e+00
                                                             0
## CST056
                  0
                            0
                                     0 1.959286e-05
                                                             0
                                                                       0
                                                                                 0
## CSI066
                  0
                            0
                                      0 0.00000e+00
                                                             0
##
          Otu07814 Otu07815 Otu07816 Otu07817 Otu07818 Otu07819 Otu07820
## CST002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                                         0
## CSI023
                  0
                                      0
                                               0
                                                                             0
## CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                             0
## CSI056
                            0
                                               0
                  0
                                      0
                                                                             0
## CSI066
                  0
                            0
                                      0
                                               0
##
                             Otu07822 Otu07823 Otu07824 Otu07825 Otu07826
               Otu07821
## CSI002 2.724387e-05 0.000000e+00
                                              0
                                                        0
                                                                  0
                                                                            0
## CSI013 0.000000e+00 0.000000e+00
                                              0
                                                                  0
                                                        0
                                                                            0
## CSI023 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
                                              0
                                                        0
## CSI034 0.000000e+00 3.789817e-05
                                              0
                                                        0
                                                                  0
                                                                            0
  CSI045 0.000000e+00 0.000000e+00
                                              0
                                                                  0
                                                        0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                                  0
  CSI066 0.000000e+00 0.000000e+00
                                                                  0
                                              0
                                                        0
                                                                            0
               Otu07827 Otu07828 Otu07829
                                                Otu07830 Otu07831 Otu07832
## CSI002 0.000000e+00
                                Λ
                                          0 0.000000e+00
                                                                  Ω
                                                                            0
## CSI013 0.000000e+00
                                          0 3.195807e-05
                                                                  0
## CSI023 0.000000e+00
                                                                  0
                                0
                                          0 0.00000e+00
                                                                            0
## CSI034 0.000000e+00
                                0
                                                                  0
                                          0 0.000000e+00
                                                                            0
                                0
                                                                  0
## CSI045 0.000000e+00
                                          0 0.000000e+00
                                                                            0
## CSI056 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  Ω
## CSI066 3.833694e-05
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
          Otu07833 Otu07834 Otu07835 Otu07836 Otu07837 Otu07838 Otu07839
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                             0
## CSI045
                  0
                            0
                                      0
                                                                             0
## CSI056
                            0
                                               0
                  0
                                      0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
          Otu07840 Otu07841 Otu07842 Otu07843
                                                      Otu07844 Otu07845 Otu07846
## CSI002
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
## CSI013
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
                                               0 0.000000e+00
                  Λ
                            0
                                      0
                                                                       0
                                                                                 0
## CSI034
                  0
                            0
                                      0
## CSI045
                                               0 0.00000e+00
## CSI056
                  0
                            0
                                      0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
                            0
## CSI066
                  0
                                     0
                                               0 0.000000e+00
                                                                       Ω
          Otu07847 Otu07848 Otu07849 Otu07850 Otu07851 Otu07852 Otu07853
##
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                                         0
                                                                   0
                                      0
                                               0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
## CSI034
                  0
                                      0
                                               0
                                                                             0
## CSI045
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
                            0
                                      0
                                               0
                                                         0
##
                  0
                                                                   0
                                                                             0
          Otu07854 Otu07855 Otu07856 Otu07857 Otu07858 Otu07859 Otu07860
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
```

```
## CSI023
                  0
                            0
                                      0
                                                                             0
  CSI034
                  0
                            0
                                                0
                                                         0
                                                                             0
##
                                      0
                                                                   0
  CSI045
##
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
  CSI056
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
##
   CST066
                  0
                            0
                                                0
                                                                   0
                                                                             0
          Otu07861 Otu07862
                                  Otu07863 Otu07864
##
                                                          Otu07865 Otu07866
## CSI002
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
## CSI013
                  0
                            0
                              0.000000e+00
                                                    0 0.00000e+00
                                                                            0
##
   CSI023
                  0
                              4.082049e-05
                                                     0.000000e+00
                                                                            0
                                                                            0
##
   CSI034
                  0
                              0.000000e+00
                                                      5.684725e-05
   CSI045
                  0
                              0.000000e+00
                                                      0.000000e+00
                                                                            0
                  0
                                                     0.000000e+00
                                                                            0
##
   CSI056
                              0.000000e+00
##
   CSI066
                  0
                            0
                              0.000000e+00
                                                    0 0.000000e+00
                                                                            0
##
          Otu07867
                    Otu07868
                              Otu07869 Otu07870 Otu07871
                                                                Otu07872
## CSI002
                  0
                                      0
                                                0
                                                         0 0.000000e+00
                            0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                         0 9.587421e-05
                            0
                                                0
##
   CSI023
                  0
                                      0
                                                         0 0.00000e+00
   CSI034
                  0
                            0
                                      0
                                                0
                                                         0 1.894908e-05
   CSI045
                            0
                                                0
##
                  0
                                      0
                                                         0.000000e+00
##
   CSI056
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
##
   CST066
                  0
                            0
                                                0
                                                         0 0.000000e+00
##
               Otu07873 Otu07874
                                       Otu07875 Otu07876 Otu07877
                                                                         Otu07878
  CSI002 0.000000e+00
                                                        0
##
                                0 0.00000e+00
                                                                  0 1.362194e-05
   CSI013 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
                                0 0.00000e+00
   CSI023 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI034 1.894908e-05
                                0 0.00000e+00
                                                        0
                                                                  0 7.579634e-05
   CSI045 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0 0.00000e+00
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                                  0 0.00000e+00
##
##
           Otu07879 Otu07880
                                  Otu07881 Otu07882
                                                          Otu07883 Otu07884
## CSI002
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
##
   CSI013
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00
                                                                            0
##
   CSI023
                  0
                              0.000000e+00
                                                      0.000000e+00
                                                                            0
                  0
                                                                            0
##
   CSI034
                              0.000000e+00
                                                      0.000000e+00
   CSI045
                  0
                              0.000000e+00
                                                      0.000000e+00
                                                                            0
##
                                                      0.000000e+00
                              0.000000e+00
                                                                            0
##
   CST056
                  0
                            0
##
   CSI066
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
##
          Otu07885
                    Otu07886
                              Otu07887 Otu07888 Otu07889
                                                                Otu07890 Otu07891
                                                         0 0.000000e+00
## CSI002
                            0
                                      0
                                                0
                  0
                                                                                 0
  CSI013
                            0
                                                0
                                                                                 0
##
                  0
                                      0
                                                         0 0.00000e+00
  CSI023
                            0
                                                0
                                                                                 0
                  0
                                      0
                                                         0 0.00000e+00
  CSI034
                  0
                            0
                                      0
                                                0
                                                         0 1.894908e-05
                                                                                 0
##
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                         0 0.00000e+00
                                                                                 0
                            0
                                      0
                                                0
                                                                                 0
##
   CSI056
                  Λ
                                                         0 0.000000e+00
                            0
                                      0
##
   CSI066
                                                0
                                                         0 0.00000e+00
               Otu07892 Otu07893 Otu07894 Otu07895
##
                                                          Otu07896 Otu07897
##
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 2.724387e-05
                                                                            0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0
                                                      0.000000e+00
                                                                            0
   CSI034 0.000000e+00
                                0
                                          0
                                                      0.000000e+00
                                                                            0
   CSI045 0.000000e+00
                                0
                                          0
                                                                            0
                                                      0.000000e+00
   CSI056 3.918572e-05
                                0
                                          0
                                                     0.000000e+00
                                                                            0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
##
          Otu07898 Otu07899 Otu07900
                                            Otu07901 Otu07902 Otu07903 Otu07904
```

```
## CSI002
                                       0 0.00000e+00
                                                               0
                                                                         0
## CSI013
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
## CSI023
                   0
                             0
                                       0 0.00000e+00
                                                               0
                                                                         0
                             0
                                                               0
## CSI034
                   0
                                       0 0.00000e+00
                                                                         0
## CSI045
                   0
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
## CSI056
                             0
                                       0 0.000000e+00
                                                               0
                                                                         0
                   \cap
                             0
                                       0 0.000000e+00
                                                               0
  CSI066
               Otu07905 Otu07906 Otu07907 Otu07908 Otu07909
##
                                                                 Otu07910 Otu07911
  CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
   CSI013 3.195807e-05
   CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
## CSI034 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                 0
                                           0
                                                     0
                                                               0
## CSI056 0.000000e+00
                                                                         0
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
##
           Otu07912 Otu07913 Otu07914 Otu07915 Otu07916 Otu07917
                                                                       0tu07918
## CSI002
                             0
                                       0
                                                 0
                                                           0
                   0
                                                                     0
                                                                               0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI023
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI056
                                                                               0
## CSI066
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                   \cap
                                                                               0
           Otu07919
                         Otu07920 Otu07921 Otu07922 Otu07923 Otu07924
##
## CSI002
                   0 1.362194e-05
                                           0
                                                     0
                                                               0
  CSI013
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
## CSI023
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
   CSI034
                                                                         0
                                           0
                                                               0
   CSI045
                   0 0.000000e+00
                                                     0
                                                                         0
  CSI056
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
  CSI066
                   0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
##
               Otu07925 Otu07926
                                        Otu07927 Otu07928 Otu07929 Otu07930
   CSI002 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
   CSI013 0.000000e+00
                                 0 0.000000e+00
                                                                    0
                                                                              0
                                                         0
   CSI023 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                    0
                                                                              0
  CSI034 0.000000e+00
                                 0 1.894908e-05
                                                         0
                                                                    0
                                                                              0
## CSI045 0.000000e+00
                                 0 0.00000e+00
                                                          0
                                                                    0
## CSI056 0.000000e+00
                                 0 0.000000e+00
                                                         Λ
                                                                    0
                                                                              0
  CSI066 0.000000e+00
                                 0 0.000000e+00
                                                          0
                                                                    0
##
           Otu07931 Otu07932 Otu07933 Otu07934 Otu07935 Otu07936 Otu07937
                             0
                                                                               0
## CSI002
                                       0
                                                 0
                                                           0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI023
                                                                     0
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                     0
## CSI034
                                       0
                                                                               0
## CSI045
                             0
                                                 0
                                                           0
                                                                     0
                   0
                                       0
                                                                               0
## CSI056
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                       0
## CSI066
                   0
                             0
                                                 0
                                                           0
           Otu07938 Otu07939
                                   Otu07940 Otu07941 Otu07942 Otu07943
##
                             0 0.000000e+00
## CSI002
                   0
                                                     0
                                                               0
                                                                         0
## CSI013
                   0
                             0 0.00000e+00
                                                     0
                                                               0
                                                                         0
## CSI023
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
## CSI034
                   0
                             0 0.00000e+00
                                                     0
                                                               0
                                                                         0
## CSI045
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
## CSI056
                   0
                             0 3.918572e-05
                                                     0
                                                               0
                                                                         0
```

```
## CSI066
                           0 0.00000e+00
                                                            0
                                                                      0
##
              Otu07944 Otu07945 Otu07946 Otu07947
                                                         Ot1107948 Ot1107949
## CSI002 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
  CSI013 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          Λ
   CSI023 0.000000e+00
                               0
                                         0
                                                   0 0.00000e+00
                                                                          0
                               0
                                         0
                                                   0 1.894908e-05
##
  CSI034 3.789817e-05
                                                                          0
                               0
                                         0
   CSI045 0.000000e+00
                                                   0 0.00000e+00
                                                                          0
                                                   0 0.000000e+00
## CSI056 0.000000e+00
                               0
                                         0
                                                                          0
   CSI066 0.000000e+00
                               0
                                                   0 0.00000e+00
                                                                          0
          Otu07950 Otu07951 Otu07952
##
                                           0tu07953
                                                         Otu07954 Otu07955
## CSI002
                  0
                           0
                                     0 1.362194e-05 2.724387e-05
                                                                          0
## CSI013
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
                  0
##
  CSI023
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
                           0
##
  CSI034
                  0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
  CSI045
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
##
  CSI056
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                          0
##
  CSI066
##
              Otu07956 Otu07957
                                      Otu07958
                                                    Otu07959 Otu07960 Otu07961
                               0 0.000000e+00 0.000000e+00
## CSI002 0.000000e+00
                                                                     0
                                                                              0
## CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI034 0.000000e+00
                               0 0.000000e+00 1.894908e-05
                                                                     0
                                                                              0
                               0 0.000000e+00 0.000000e+00
## CSI045 0.000000e+00
                                                                     0
                                                                              0
                               0 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                                                     0
                                                                              0
  CSI066 5.750542e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
##
          Otu07962 Otu07963
                                  Otu07964
                                               Otu07965 Otu07966 Otu07967
## CSI002
                  0
                           0 0.000000e+00 0.000000e+00
                                                                0
                                                                          0
                                                                 0
##
  CSI013
                  0
                           0 6.391614e-05 0.000000e+00
                                                                          0
                                                                 0
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                          0
  CSI034
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
## CSI045
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
##
  CSI056
                  0
                           0 0.000000e+00 3.918572e-05
                                                                 0
                                                                          0
##
   CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
              Otu07968 Otu07969
##
                                      0 \pm 1107970
                                                    Otu07971 Otu07972 Otu07973
   CSI002 0.000000e+00
                               0 5.448775e-05 0.000000e+00
                                                                     0
                                                                              0
  CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI023 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
  CSI034 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
   CSI056 0.000000e+00
                               0 0.000000e+00 3.918572e-05
                                                                     0
                                                                              0
   CSI066 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                              0
##
          Otu07974 Otu07975 Otu07976
                                           Otu07977 Otu07978 Otu07979
## CSI002
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                           0
                                                            0
## CSI013
                  0
                                     0 0.00000e+00
                                                                      0
## CSI023
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
## CSI034
                  0
                           0
                                                            0
                                     0 1.894908e-05
                                                                      0
##
  CSI045
                  0
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
                  0
##
   CSI056
                           0
                                     0 0.00000e+00
                                                            0
                                                                      0
##
   CST066
                  0
                           0
                                     0 0.000000e+00
                                                            0
                                                                      Λ
##
              Otu07980 Otu07981 Otu07982
                                               Otu07983 Otu07984 Otu07985
  CSI002 0.000000e+00
                                                                 0
                                                                          0
##
                               0
                                         0 0.00000e+00
## CSI013 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                 0
                                                                          0
## CSI023 0.000000e+00
                               0
                                         0.000000e+00
                                                                 0
                                                                          0
## CSI034 3.789817e-05
                               0
                                         0 0.000000e+00
                                                                 0
                                                                          0
```

```
## CSI045 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                            0
   CSI056 3.918572e-05
                                          0 0.000000e+00
                                                                  0
                                                                            0
                                0
   CSI066 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
##
           Otu07986 Otu07987 Otu07988 Otu07989 Otu07990 Otu07991
                                                                         Otu07992
## CST002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.000000e+00
## CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.000000e+00
## CSI023
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
## CSI034
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.000000e+00
                                      0
                                                0
                                                         0
## CSI056
                  0
                            0
                                                                   0 0.00000e+00
   CSI066
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
          Otu07993 Otu07994 Otu07995 Otu07996
                                                      Otu07997 Otu07998
##
##
  CSI002
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                       0
## CSI013
                            0
                  0
                                      0
                                                0 0.00000e+00
                                                                       0
## CSI023
                  0
                                                0 0.000000e+00
                            0
                                      0
                                                                       0
##
  CSI034
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
                            0
##
  CSI045
                  0
                                      0
                                                0 0.00000e+00
                                                                       0
   CSI056
                            0
                                                0 0.00000e+00
##
##
  CST066
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                       0
##
               Otu07999 Otu08000
                                       Otu08001
                                                     Otu08002 Otu08003 Otu08004
##
  CSI002 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       Λ
                                                                                0
## CSI013 3.195807e-05
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                0
                                0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                                                                       0
                                                                                0
  CSI034 0.000000e+00
                                0 0.000000e+00 3.789817e-05
                                                                       0
                                                                                0
## CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                0
   CSI056 0.000000e+00
                                0 1.959286e-05 0.000000e+00
                                                                       0
                                                                                0
##
   CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                0
          Otu08005 Otu08006 Otu08007 Otu08008 Otu08009 Otu08010 Otu08011
##
## CSI002
                  0
                            0
                                                0
                                                         0
                                                                   0
                                      0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
  CSI034
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI045
                  0
                            0
                                      0
                                                                             0
  CSI056
                            0
##
                  0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI066
          Otu08012 Otu08013 Otu08014 Otu08015 Otu08016 Otu08017 Otu08018
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  Ω
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
                                      0
## CSI023
                  0
                            0
                                                         0
                                      0
                                                0
                                                                             0
                  0
                            0
                                                0
                                                         0
## CSI034
                                      0
                                                                   0
                                                                             0
                            0
                                                         0
  CSI045
                  0
                                                                   0
                                                                             0
## CSI056
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI066
                  0
                            0
                                                0
                                                         \cap
                                                                   0
                                                                             0
                                       Otu08021 Otu08022
                                                               Otu08023 Otu08024
##
          Otu08019
                         Otu08020
                  0 0.000000e+00 0.000000e+00
## CSI002
                                                        0 0.00000e+00
                                                                                0
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
  CSI023
                  0 2.041025e-05 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
## CSI034
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
                  0 0.000000e+00 1.916847e-05
##
                                                        0 1.916847e-05
                                                                                0
##
          Otu08025 Otu08026 Otu08027 Otu08028 Otu08029 Otu08030
                                                                          Otu08031
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
## CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
```

```
## CSI023
                  0
                            0
                                      0
                                                          0
                                                                    0 0.00000e+00
                                                                    0 0.000000e+00
  CSI034
                  0
                            0
                                                0
                                                          0
##
                                      0
   CSI045
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
   CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
##
##
   CST066
                  0
                            0
                                                0
                                                          0
                                                                    0 0.000000e+00
           Otu08032
                                       Otu08034 Otu08035 Otu08036 Otu08037
##
                         Otu08033
  CSI002
                  0 1.362194e-05 0.000000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
## CSI013
                  0 3.195807e-05 3.195807e-05
                                                         0
                                                                             0
##
   CSI023
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
                                                                             0
##
   CSI034
                  0 0.000000e+00 0.000000e+00
                                                         Λ
   CSI045
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
                    0.000000e+00 0.000000e+00
                                                         0
                                                                             0
##
   CSI056
##
   CSI066
                  0 0.000000e+00 0.000000e+00
                                                         0
                                                                   0
                                                                             0
           Otu08038 Otu08039 Otu08040 Otu08041
##
                                                      Otu08042 Otu08043 Otu08044
## CSI002
                  0
                            0
                                      0
                                                0 1.362194e-05
                                                                        0
                                                                                  0
##
   CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                  0
                            0
                                                                        0
                                                                                  0
##
   CSI023
                                      0
                                                0 0.00000e+00
   CSI034
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
   CSI045
                  0
                            0
                                                                        0
                                                                                  0
##
                                      0
                                                0 0.00000e+00
##
   CSI056
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
   CST066
                  Λ
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
               Otu08045 Otu08046 Otu08047 Otu08048
                                                           Otu08049 Otu08050
  CSI002 4.086581e-05
                                 0
                                          0
##
                                                    0.000000e+00
                                                                             0
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0 0.00000e+00
                                                                             0
                                                                             0
   CSI023 0.000000e+00
                                 0
                                          0
                                                    0 0.00000e+00
   CSI034 3.789817e-05
                                 0
                                          0
                                                    0
                                                      0.000000e+00
                                                                             0
   CSI045 0.000000e+00
                                 0
                                          0
                                                      0.000000e+00
                                                                             0
                                 0
                                          0
   CSI056 0.000000e+00
                                                      0.000000e+00
                                                                             0
                                 0
   CSI066 0.000000e+00
                                          0
                                                    0 0.00000e+00
                                                                             0
##
           Otu08051 Otu08052 Otu08053 Otu08054 Otu08055 Otu08056 Otu08057
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI034
                                      0
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CST056
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu08058
                    Otu08059
                              Otu08060 Otu08061
                                                      Otu08062 Otu08063 Otu08064
## CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
   CSI013
                            0
                                      0
                                                                        0
                                                                                  0
##
                  0
                                                0 0.00000e+00
   CSI023
                            0
                                                                                  0
                  0
                                      0
                                                0 0.00000e+00
                                                                        0
  CSI034
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
                            0
##
   CSI045
                  0
                                      0
                                                  0.000000e+00
                                                                        0
                                                                                  0
                            0
                                      0
                                                                                  0
##
   CSI056
                  Λ
                                                  0.000000e+00
                                                                        Λ
                            0
                                      0
                                                                                  0
##
   CSI066
                                                0 3.833694e-05
               Otu08065 Otu08066 Otu08067 Otu08068
##
                                                           Otu08069
                                                                         Otu08070
##
   CSI002 0.000000e+00
                                 0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
                                 0
                                          0
                                                    0 0.000000e+00 0.000000e+00
   CSI023 2.041025e-05
                                 0
                                          0
                                                      0.000000e+00 0.000000e+00
   CSI034 0.000000e+00
                                 0
                                          0
                                                      5.684725e-05 0.000000e+00
   CSI045 0.000000e+00
                                 0
                                          0
                                                      0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                 0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
   CSI066 0.000000e+00
                                 0
                                          0
                                                    0 0.000000e+00 0.000000e+00
##
           Otu08071 Otu08072 Otu08073 Otu08074 Otu08075 Otu08076 Otu08077
```

```
## CSI002
                                                                             0
  CSI013
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI023
                  0
                            0
                                                          0
                                                                             0
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
##
   CSI045
                  0
                            0
                                                0
                                                                             0
                            0
                                                0
                                                          0
                                                                    0
##
  CSI056
                                      0
                                                                             0
                  0
                            0
##
   CSI066
                                      0
                                                                             0
               Otu08078 Otu08079 Otu08080 Otu08081 Otu08082
##
                                                                     Otu08083
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
                                0
                                                    0
   CSI013 0.000000e+00
                                          0
                                                              0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
                                0
                                          0
                                                    0
   CSI034 0.000000e+00
                                                                0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
                                          0
   CSI056 1.959286e-05
                                0
                                                    0
                                                              0 0.00000e+00
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
##
           Otu08084 Otu08085 Otu08086 Otu08087 Otu08088 Otu08089 Otu08090
## CSI002
                                                          0
                  0
                            0
                                      0
                                                0
                                                                    0
                                                                             0
##
  CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI023
                            0
                                                0
                                                          0
                                                                    0
                                                                             0
##
                  0
                                      0
##
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI056
                            0
                                                                             0
                  0
                            0
                                      0
                                                                    0
                                                                             0
##
  CST066
                                                0
                                                          0
           Otu08091 Otu08092 Otu08093 Otu08094
                                                      Otu08095 Otu08096 Otu08097
##
## CSI002
                                                0 1.362194e-05
                  0
                            0
                                      0
                                                                        0
                                                                                  0
  CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
  CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
                            0
                                                                                  0
##
   CSI034
                  0
                                      0
                                                0 0.00000e+00
                                                                        0
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
##
   CSI045
  CSI056
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
   CSI066
                  0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
               Otu08098
                             Otu08099 Otu08100 Otu08101
                                                               Otu08102 Otu08103
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                 0
   CSI013 3.195807e-05 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                 0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
                                                                                 0
   CSI034 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                 0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
  CSI056 1.959286e-05 3.918572e-05
                                               0
                                                        0 0.00000e+00
                                                                                 0
   CSI066 0.000000e+00 0.000000e+00
                                                         0 0.00000e+00
           Otu08104
                                                 Otu08107 Otu08108 Otu08109
##
                         Otu08105 Otu08106
  CSI002
                  0 5.448775e-05
                                          0 0.00000e+00
                                                                  0
                                                                            0
## CSI013
                  0 0.00000e+00
                                          0 3.195807e-05
                                                                  0
                                                                            0
   CSI023
                  0 0.00000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
                                                                  0
##
   CSI034
                    0.000000e+00
                                          0 0.000000e+00
                                                                            0
  CSI045
                  0 0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
## CSI056
                    0.000000e+00
                                          0 0.000000e+00
                                                                  0
                                                                            0
##
  CSI066
                  0
                    0.000000e+00
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
           Otu08110
                         Otu08111
                                       Otu08112 Otu08113 Otu08114 Otu08115
## CSI002
                  0 1.362194e-05 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
   CSI013
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
##
   CSI023
## CSI034
                  0 0.000000e+00 5.684725e-05
                                                        0
                                                                  0
                                                                            0
## CSI045
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
## CSI056
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  0
                                                                            0
```

```
## CSI066
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                          0
##
                        Otu08117 Otu08118
                                               Otu08119 Otu08120 Otu08121
          Ot:1108116
                                         0 0.000000e+00
## CSI002
                  0 0.00000e+00
                                                                0
                                                                          0
## CSI013
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                0
                                                                          Λ
## CSI023
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                0
                                                                          0
                  0 1.894908e-05
                                                                0
                                                                         0
## CSI034
                                         0 0.00000e+00
                                                                0
## CSI045
                  0 0.00000e+00
                                         0 0.000000e+00
                  0 0.000000e+00
## CSI056
                                         0 0.00000e+00
                                                                0
                                                                         0
##
  CSI066
                  0 0.000000e+00
                                         0 3.833694e-05
                                                                Ω
                                                                          0
##
          Otu08122 Otu08123 Otu08124 Otu08125
                                                    Otu08126 Otu08127
## CSI002
                  0
                           0
                                    0
                                              0 0.00000e+00
## CSI013
                  0
                           0
                                    0
                                                                     0
                                              0 3.195807e-05
## CSI023
                  0
                           0
                                    0
                                              0 0.000000e+00
                                                                     0
                           0
## CSI034
                  0
                                    0
                                              0 0.00000e+00
                                                                     0
## CSI045
                  0
                           0
                                    0
                                              0.0.000000e+00
                                                                     0
## CSI056
                  0
                           0
                                    0
                                              0 0.00000e+00
                                                                     0
                  0
                           0
                                    0
##
  CSI066
                                              0 0.00000e+00
                                                                     0
##
              Otu08128 Otu08129 Otu08130 Otu08131 Otu08132 Otu08133
## CSI002 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
## CSI013 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
  CSI023 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
## CSI034 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
## CSI045 0.000000e+00
                                         0
                                                  0
                                                            Λ
                               0
                                                                     0
   CSI056 1.959286e-05
                               0
                                         0
                                                  0
                                                            0
  CSI066 0.000000e+00
                               0
                                         0
                                                  0
                                                            0
                                                                     0
              Otu08134 Otu08135 Otu08136
                                               Otu08137 Otu08138 Otu08139
## CSI002 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0
                                                                          0
                               0
                                                                0
   CSI013 0.000000e+00
                                         0 3.195807e-05
                                                                          0
                                                                0
  CSI023 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                          0
  CSI034 1.894908e-05
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
   CSI045 0.000000e+00
                               0
                                         0 0.000000e+00
                                                                0
                                                                          0
   CSI056 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
                                                                          0
   CSI066 0.000000e+00
                               0
                                         0 0.00000e+00
                                                                0
##
              Otu08140 Otu08141
                                     Otu08142 Otu08143 Otu08144
                                                                      Otu08145
## CSI002 2.724387e-05
                               0 0.00000e+00
                                                      0
                                                                0 4.086581e-05
  CSI013 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0 0.000000e+00
## CSI023 0.000000e+00
                               0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
  CSI034 0.000000e+00
                               0 1.894908e-05
                                                      Λ
                                                                0 3.789817e-05
   CSI045 0.000000e+00
                               0 0.000000e+00
                                                      0
                                                                0 0.000000e+00
  CSI056 0.000000e+00
                                                      Λ
                               0 0.00000e+00
                                                                0.0.000000e+00
                               0 0.000000e+00
   CSI066 0.000000e+00
                                                                0 0.000000e+00
                                     Otu08148 Otu08149 Otu08150
##
          0t.1108146
                        0t.1108147
                                                                      Ot:1108151
  CSI002
                 0 1.362194e-05 0.000000e+00
                                                      0
                                                                0 0.00000e+00
                                                      0
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                                0 0.00000e+00
## CSI023
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
## CSI034
                  0 0.000000e+00 7.579634e-05
                                                      0
                                                                0 0.00000e+00
##
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 3.265093e-05
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.00000e+00
   CST066
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0 0.000000e+00
##
          Otu08152
                        Otu08153
                                     Otu08154 Otu08155 Otu08156 Otu08157
## CSI002
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                0
                                                                         0
                                                                0
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                      0
                                                                          0
                  0 0.000000e+00 0.000000e+00
## CSI023
                                                      0
                                                                0
                                                                         0
## CSI034
                 0 1.894908e-05 0.000000e+00
                                                      0
                                                                0
                                                                          0
```

```
## CSI045
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
## CST056
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI066
                  0 0.000000e+00 1.916847e-05
                                                       0
                                                                 0
##
          Otu08158 Otu08159
                                  Otu08160
                                               Otu08161 Otu08162 Otu08163
## CST002
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
## CSI013
                  Λ
                           0 0.000000e+00 0.000000e+00
                                                                 Ω
                                                                           0
                           0 0.000000e+00 0.000000e+00
## CSI023
                                                                 0
                           0 0.000000e+00 0.000000e+00
## CSI034
                  0
                                                                 0
                                                                           0
## CSI045
                  Ω
                           0 0.000000e+00 0.000000e+00
                                                                 Ω
                                                                           0
                  Λ
                                                                 Λ
                                                                           Λ
## CSI056
                           0 1.959286e-05 0.000000e+00
  CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
          Otu08164 Otu08165 Otu08166 Otu08167
                                                     Otu08168 Otu08169 Otu08170
##
## CSI002
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
## CSI013
                           0
                                     0
                                                                      0
                                                                                0
                  0
                                               0 0.00000e+00
## CSI023
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                                                                                0
## CSI034
                  0
                           0
                                     0
                                               0 1.894908e-05
                                                                      0
                                                                                0
                  0
                           0
                                     0
                                                                      0
                                                                                0
## CSI045
                                               0 0.00000e+00
## CSI056
                  0
                           0
                                     0
                                               0 0.00000e+00
                           0
                                     0
                                                                                0
##
  CST066
                  0
                                               0 0.000000e+00
                                                                      0
          Otu08171 Otu08172 Otu08173 Otu08174
                                                     Otu08175 Otu08176
## CSI002
                  Λ
                           0
                                     Ω
                                              0 0.000000e+00
                                                                      0
## CSI013
                           0
                                     0
                                               0 0.00000e+00
## CSI023
                           0
                                               0 0.000000e+00
                  0
                                     0
                                                                      0
                  0
                           0
                                     0
## CSI034
                                               0 1.894908e-05
## CSI045
                  0
                           0
                                     0
                                                                      0
                                              0 0.000000e+00
## CSI056
                  0
                           0
                                     0
                                              0 0.000000e+00
##
  CSI066
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
              Otu08177 Otu08178 Otu08179
                                               Otu08180 Otu08181 Otu08182
                                                                 0
## CSI002 0.000000e+00
                                0
                                         0 0.000000e+00
## CSI013 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
## CSI023 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
                                                                           0
## CSI034 1.894908e-05
                                0
                                         0 0.000000e+00
                                                                 0
                                                                           0
                                0
## CSI045 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
## CSI056 0.000000e+00
                                0
                                                                 0
                                         0 1.959286e-05
                                                                           0
   CSI066 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
##
          Otu08183 Otu08184 Otu08185 Otu08186 Otu08187 Otu08188 Otu08189
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
## CSI013
                  Λ
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
                  Λ
                           0
                                     0
                                               0
                                                        0
                                                                  0
## CST034
                                                                            0
                  0
                           0
## CSI045
                                                                            0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                                               0
  CST066
                  0
                           0
                                     0
                                                        0
                                                                  0
                                                                            0
          Otu08190 Otu08191 Otu08192 Otu08193 Otu08194 Otu08195 Otu08196
##
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI013
                  0
                           0
                                                        0
                                                                  0
                                     0
                                               0
                                                                            0
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                  0
                           0
                                               0
                                                        0
## CSI034
                                     0
                                                                            0
## CSI045
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                  0
                           0
                                               0
                                                        0
##
                                     0
                                                                            0
##
          Otu08197 Otu08198
                                  Otu08199 Otu08200 Otu08201
                                                                   Otu08202
                           0 0.000000e+00
## CSI002
                  0
                                                   0
                                                            0 0.000000e+00
## CSI013
                  0
                           0 0.000000e+00
                                                   0
                                                            0 3.195807e-05
```

```
## CSI023
                             0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
## CSI034
                   0
                             0 0.000000e+00
                                                      0
                                                                0 0.00000e+00
## CSI045
                   0
                             0 0.00000e+00
                                                      0
                                                                0 0.00000e+00
                               0.000000e+00
  CSI056
                   0
                             0
                                                      0
                                                                  0.000000e+00
##
##
   CST066
                   0
                             0
                               0.000000e+00
                                                      0
                                                                0 0.000000e+00
           Otu08203 Otu08204
                               Otu08205 Otu08206 Otu08207 Otu08208 Otu08209
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                                            0
                                                                      0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                                                0
##
  CSI023
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                             0
                                                 0
                                                            0
                                                                      0
## CSI034
                   0
                                       0
                                                                                0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                                                      0
   CSI056
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                                0
##
##
   CSI066
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                               Otu08212 Otu08213 Otu08214 Otu08215
##
           Otu08210
                     Otu08211
                                                                             Otu08216
## CSI002
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0.000000000
##
   CSI013
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.000000000
                   0
                             0
                                                            0
##
   CSI023
                                       0
                                                 0
                                                                      0 0.000000000
   CSI034
                   0
                             0
                                                            0
                                                                      0 0.000000000
                                                                      0 0.000000000
  CSI045
                   0
                             0
                                                 0
                                                            0
##
                                       0
##
  CSI056
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.000000000
##
   CST066
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.0000000000
##
           Otu08217
                     Otu08218
                               Otu08219 Otu08220
                                                   Otu08221 Otu08222 Otu08223
## CSI002
                                                            0
                                                                      0
                   0
                             0
                                       0
                                                 0
                                                                                0
  CSI013
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
                   0
                                       0
                                                                      0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                                0
  CSI034
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
  CSI045
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI056
                                       0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
   CSI066
                   0
                                       0
##
                               Otu08226 Otu08227
##
           Otu08224
                     Otu08225
                                                   Otu08228
                                                             Otu08229
                                                                        Otu08230
## CSI002
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI013
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI023
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI034
                                       0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
   CSI056
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
                   0
##
   CSI066
                             0
                                       0
                                                 0
                                                                      0
                                                                                0
##
               Otu08231 Otu08232 Otu08233 Otu08234
                                                             Otu08235 Otu08236
   CSI002 0.000000e+00
                                 0
                                            0
                                                      0 0.000000e+00
                                                                               0
                                                      0 0.000000e+00
   CSI013 0.000000e+00
                                 0
                                            0
                                                                               0
   CSI023 0.000000e+00
                                 0
                                            0
                                                       0.000000e+00
                                                                               0
   CSI034 1.894908e-05
                                 0
                                           0
                                                        0.000000e+00
                                                                               0
   CSI045 0.000000e+00
                                 0
                                            0
                                                        0.000000e+00
                                                                               0
                                 0
                                            0
                                                                               Λ
   CSI056 0.000000e+00
                                                        0.000000e+00
                                 0
                                            0
                                                      0 0.000000e+00
   CSI066 0.000000e+00
               Otu08237 Otu08238 Otu08239 Otu08240
##
                                                        Otu08241 Otu08242 Otu08243
   CSI002 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
                                 0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI013 0.000000e+00
                                            0
   CSI023 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI034 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI045 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI056 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
  CSI066 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
           Otu08244 Otu08245 Otu08246 Otu08247 Otu08248 Otu08249 Otu08250
```

```
## CSI002
                                                                             0
  CSI013
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI023
                  0
                            0
                                                          0
                                                                             0
  CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
##
   CSI045
                  0
                            0
                                                0
                                                          0
                                                                             0
                            0
                                                                    0
##
   CSI056
                  0
                                      0
                                                0
                                                          0
                                                                             0
                            0
                                                          0
                                                                    0
##
   CSI066
                                                                             0
               Otu08251 Otu08252
##
                                       Otu08253 Otu08254 Otu08255 Otu08256
   CSI002 0.000000e+00
                                0 2.724387e-05
                                                         0
                                                                   0
                                                                             0
                                                                   0
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                         0
                                                                             0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   0
                                                                             0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                         0
   CSI045 3.265093e-05
                                0 0.000000e+00
                                                         0
                                                                   0
                                                                             0
   CSI056 0.000000e+00
                                                                   0
                                0 0.00000e+00
                                                         0
                                                                             0
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                         0
                                                                   0
                                                                             0
##
##
               Otu08257 Otu08258 Otu08259
                                                 Otu08260 Otu08261
                                                                         Otu08262
   CSI002 0.000000e+00
                                0
                                          0 0.000000000
##
                                                                   0 0.00000e+00
   CSI013 3.195807e-05
                                          0 0.000000000
                                                                   0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                          0 0.000000000
                                                                   0 0.00000e+00
   CSI034 0.000000e+00
                                0
                                          0 0.000000000
                                                                   0 0.00000e+00
   CSI045 0.000000e+00
                                0
                                          0 0.0001632546
                                                                   0 0.000000e+00
   CSI056 0.000000e+00
                                          0 0.000000000
                                                                   0 0.000000e+00
  CSI066 0.000000e+00
                                0
                                                                   0 0.000000e+00
##
                                          0 0.000000000
           Otu08263 Otu08264 Otu08265 Otu08266 Otu08267 Otu08268 Otu08269
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
  CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
                                                                    0
##
   CSI034
                  0
                                      0
                                                0
                                                          0
                                                                             0
   CSI045
                  0
                            0
                                      0
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                                                                    0
                                                                             0
##
##
  CSI056
                  0
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                                      0
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                                                                    0
                                                                             0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
           Otu08270 Otu08271
                              Otu08272 Otu08273
                                                      Otu08274 Otu08275
## CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
  CSI013
                            0
                                                0 0.000000e+00
##
                  0
                                      0
                                                                        0
   CSI023
                  0
                            0
                                      0
                                                  0.000000e+00
                                                                        0
  CSI034
                            0
##
                  0
                                      0
                                                0 0.00000e+00
                                                                        0
##
   CSI045
                  0
                            0
                                                0 0.00000e+00
                                                                        0
  CSI056
                  n
                            0
                                      Λ
                                                0 0.00000e+00
                                                                        0
##
   CSI066
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
##
##
               Otu08276 Otu08277 Otu08278 Otu08279 Otu08280
                                                                     Ot:1108281
  CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
  CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                0.00000e+00
                                0
                                          0
   CSI034 1.894908e-05
                                                    0
                                                                0.000000e+00
                                          0
   CSI045 0.000000e+00
                                0
                                                    0
                                                              0 0.00000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                                0.000000e+00
                                                              0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                              0 0.00000e+00
##
           Otu08282 Otu08283 Otu08284 Otu08285
                                                      Otu08286
                                                                Otu08287 Otu08288
## CSI002
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
##
  CSI013
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
                  0
                            0
                                      0
                                                                        0
                                                                                  0
##
  CSI023
                                                0 0.00000e+00
## CSI034
                  0
                            0
                                      0
                                                0 3.789817e-05
                                                                        0
                                                                                  0
## CSI045
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
## CSI056
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
```

```
## CSI066
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
##
          Otu08289 Otu08290 Otu08291 Otu08292 Otu08293 Otu08294 Otu08295
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                               0
## CSI034
                                     0
                                                        0
                                                                  0
                                                                           0
                           0
                                                                  0
## CSI045
                  0
                                     0
                                               0
                                                        0
                                                                           0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
##
  CSI066
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
##
          Otu08296 Otu08297
                             Otu08298 Otu08299 Otu08300 Otu08301
                                                                    Otu08302
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                           0
## CSI034
                  0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI045
                  0
                           0
                                               0
                                                        0
                                                                  0
                                                                           0
                                     0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                  0
                           0
                                                        0
##
   CSI066
                                     0
                                               0
                                                                  0
                                                                           0
          Otu08303
                        Otu08304
                                      Otu08305
                                                    Otu08306
                                                                  Otu08307
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CST002
## CSI013
                  0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI023
                  0 0.000000e+00 2.041025e-05 0.000000e+00 0.000000e+00
  CSI034
                  0 0.000000e+00 0.000000e+00 0.000000e+00 3.789817e-05
                  0 3.265093e-05 0.000000e+00 0.000000e+00 0.000000e+00
## CSI045
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
  CSI056
  CSI066
                  0 0.000000e+00 0.000000e+00 1.916847e-05 0.000000e+00
          Otu08308 Otu08309 Otu08310
                                           Otu08311 Otu08312
                                                                   Otu08313
## CSI002
                  0
                           0
                                                            0 0.00000e+00
                                     0 0.000000e+00
  CSI013
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                            0 0.000000e+00
  CSI034
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.00000e+00
## CSI045
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.000000e+00
##
  CSI056
                  0
                           0
                                     0 0.00000e+00
                                                            0 0.000000e+00
   CSI066
                  0
                           0
                                     0 5.750542e-05
                                                            0 3.833694e-05
              Otu08314 Otu08315 Otu08316
##
                                               Otu08317 Otu08318
                                                                       Otu08319
   CSI002 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                0 5.448775e-05
  CSI013 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                0 0.000000e+00
  CSI023 2.041025e-05
                                0
                                         0 2.041025e-05
                                                                 0 0.000000e+00
  CSI034 0.000000e+00
                                0
                                         0 1.894908e-05
                                                                0 0.000000e+00
   CSI045 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0.000000e+00
   CSI056 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0.0.000000e+00
   CSI066 0.000000e+00
                                         0 0.00000e+00
                                                                 0.000000e+00
                                      Otu08322 Otu08323 Otu08324 Otu08325
##
              Otu08320 Otu08321
   CSI002 2.724387e-05
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                                                       0
                                                                 0
                                                                          0
  CSI013 0.000000e+00
                                0 0.000000e+00
  CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
## CSI034 0.000000e+00
                                                       0
                                                                 0
                                                                          0
                                0 0.00000e+00
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                          0
                                                                 0
                                                                          0
   CSI056 0.000000e+00
                                0 5.877858e-05
                                                       0
   CST066 0.000000e+00
                                0.0.000000e+00
                                                       0
                                                                 0
                                                                          0
          Otu08326 Otu08327 Otu08328 Otu08329
                                                     Otu08330 Otu08331 Otu08332
## CSI002
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                                                                                0
                           0
                                                                                0
## CSI013
                  0
                                     0
                                               0 0.00000e+00
                                                                      0
## CSI023
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                                0
## CSI034
                  0
                           0
                                     0
                                              0 0.000000e+00
                                                                      0
                                                                                0
```

```
## CSI045
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CST056
                                                                                 0
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
##
   CSI066
                  0
                            0
                                      0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
          Otu08333 Otu08334 Otu08335 Otu08336
                                                     Otu08337 Otu08338
## CST002
                  0
                            0
                                     0
                                               0 0.000000000
                                                                       0
## CSI013
                            0
                  0
                                     0
                                               0 0.0001278323
                                                                       0
## CSI023
                  0
                            0
                                     0
                                               0 0.000000000
                                                                       0
## CSI034
                  0
                            0
                                     0
                                               0 0.000000000
                                                                       0
##
   CSI045
                  0
                            0
                                     0
                                               0 0.000000000
                                                                       0
                            0
##
  CSI056
                  0
                                     0
                                               0 0.000000000
                                                                       Λ
   CSI066
                  0
                            0
                                      0
                                               0 0.000000000
               Otu08339 Otu08340 Otu08341 Otu08342
##
                                                          Otu08343
                                                                        Otu08344
##
   CSI002 1.362194e-05
                                0
                                          0
                                                   0 0.000000e+00 5.448775e-05
   CSI013 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
                                0
                                          0
   CSI034 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
                                0
   CSI056 0.000000e+00
                                          0
                                                   0 0.000000e+00 0.000000e+00
                                                   0 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00
                                          0
##
                                0
##
          Otu08345
                        Otu08346 Otu08347 Otu08348 Otu08349 Otu08350
##
  CSI002
                  0 0.000000e+00
                                          Λ
                                                   Λ
                                                             Λ
                                                                       0
## CSI013
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
## CSI023
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                          0
##
  CSI034
                  0 3.789817e-05
                                                   0
                                                             0
                                          0
##
  CST045
                  0.000000e+00
                                                   0
                                                             0
                                                                       0
   CSI056
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       Λ
##
   CSI066
##
               Otu08351
                             Otu08352
                                           Otu08353
                                                         Otu08354 Otu08355
   CSI002 1.362194e-05 0.000000e+00 0.000000e+00 1.362194e-05
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI023 0.000000e+00 4.082049e-05 0.000000e+00 0.000000e+00
                                                                          0
   CSI034 1.894908e-05 0.000000e+00 0.000000e+00 1.894908e-05
                                                                          0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                          0
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                     Otu08360 Otu08361 Otu08362
          Otu08356 Otu08357 Otu08358 Otu08359
##
## CSI002
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI013
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                                                       0
                                                                                 0
                                     0
                                               0.0.000000e+00
                            0
                                     0
                                                                       0
                                                                                 O
## CSI034
                  \cap
                                               0.0.000000e+00
                            0
  CSI045
                  0
                                     0
                                               0 3.265093e-05
                                                                                 0
  CSI056
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
##
##
   CSI066
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
          Otu08363 Otu08364 Otu08365 Otu08366 Otu08367 Otu08368 Otu08369
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI013
                  0
                                               0
                                                         0
                                                                   0
                            0
                                     0
                                                                            0
##
  CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
  CSI034
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
##
  CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CSI056
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                            0
                                               0
                                                         0
                                                                   0
                                                                            0
##
   CST066
                  0
                                     0
##
               Otu08370
                             Otu08371 Otu08372 Otu08373 Otu08374 Otu08375
## CSI002 1.362194e-05 1.362194e-05
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI013 0.000000e+00 3.195807e-05
                                              0
                                                        0
                                                                  0
                                                                           0
```

```
## CSI023 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI034 0.000000e+00 1.894908e-05
                                               0
                                                                   0
                                                         0
                                                                             0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
   CSI056 0.000000e+00 0.000000e+00
                                               Λ
                                                         Λ
                                                                   0
                                                                             Λ
##
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                         0
                                                                   0
                                                                             0
           Otu08376
                         Otu08377 Otu08378 Otu08379 Otu08380 Otu08381 Otu08382
##
  CSI002
                  0 1.362194e-05
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                   0
## CSI013
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
   CSI023
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
                                           0
                                                                                   0
##
   CSI034
                  0 0.00000e+00
                                                     0
                                                               0
                                                                        Λ
   CSI045
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
##
   CSI056
                  0 0.00000e+00
##
   CSI066
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
                  0
                                                       Otu08387
                                                                 Otu08388
##
           Otu08383
                         Otu08384 Otu08385 Otu08386
## CSI002
                  0 0.000000e+00
                                          0
                                                     0
                                                              0
                                                                        0
                                                                                   0
##
   CSI013
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
                                           0
                                                                                   0
##
   CSI023
                   0 0.000000e+00
                                                     0
                                                               0
                                                                        0
   CSI034
                    0.000000e+00
                                           0
                                                     0
                                                               0
                                                                                   0
   CSI045
                                           0
                                                     0
                                                               0
                                                                                  0
##
                  0 0.00000e+00
                                                                        0
##
   CSI056
                    1.959286e-05
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
##
   CST066
                   0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   O
           Otu08390 Otu08391 Otu08392 Otu08393 Otu08394 Otu08395
##
## CSI002
                            0
                                                          0
                                                                    0
                  0
                                      0
                                                0
                                                                              0
   CSI013
                            0
                                                0
                                                          0
                                                                    0
##
                  0
                                      0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI056
                   0
                                      0
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI066
                                      0
##
                  0
##
               Otu08397 Otu08398 Otu08399 Otu08400 Otu08401 Otu08402 Otu08403
##
   CSI002 1.362194e-05
                                 0
                                           0
                                                     0
                                                              0
                                                                        0
                                                                                   0
   CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
   CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI034 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                   0
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                        0
                                                                                  0
##
##
   CSI066 0.000000e+00
                                 0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
           Otu08404 Otu08405 Otu08406
                                             Otu08407
                                                           Otu08408 Otu08409
## CSI002
                            0
                                      0 0.000000e+00 1.362194e-05
                                                                             0
                                      0 0.000000e+00 0.000000e+00
  CSI013
                            0
                                                                             0
##
                  0
   CSI023
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                             0
                  0
  CSI034
                  0
                            0
                                      0 0.000000e+00 0.000000e+00
                                                                             0
##
##
   CSI045
                  0
                            0
                                      0 0.000000e+00 6.530186e-05
                                                                             0
                            0
##
   CSI056
                   Λ
                                      0 0.000000e+00 0.000000e+00
                                                                             0
                            0
##
   CSI066
                                      0 1.916847e-05 0.000000e+00
##
               Otu08410 Otu08411
                                       Otu08412 Otu08413
                                                                Otu08414
   CSI002 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
   CSI013 0.000000e+00
                                 0 0.00000e+00
                                                         0 3.195807e-05
   CSI023 0.000000e+00
                                 0 0.000000e+00
                                                         0 0.000000e+00
   CSI034 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.00000e+00
                                                         0 0.000000e+00
   CSI045 0.000000e+00
                                 0 0.00000e+00
   CSI056 0.000000e+00
                                 0 0.00000e+00
                                                         0 0.000000e+00
                                 0 0.000000e+00
##
   CSI066 0.000000e+00
                                                         0 0.000000e+00
##
               Otu08415
                             Otu08416 Otu08417 Otu08418
                                                                Otu08419 Otu08420
```

```
## CSI002 4.086581e-05 0.000000e+00
                                               0
                                                        0 0.00000e+00
                                                                                 0
  CSI013 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.000000e+00
                                                                                 0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.000000e+00
                                                                                 0
  CSI034 0.000000e+00 0.000000e+00
                                               0
                                                        0 1.894908e-05
                                                                                 Λ
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.000000e+00
                                                                                 0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.000000e+00
                                                                                 0
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
               Otu08421 Otu08422 Otu08423 Otu08424
                                                           Otu08425 Otu08426
##
   CSI002 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
                                0
                                          0
                                                                            0
   CSI013 0.000000e+00
                                                    0 0.000000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                            0
  CSI034 0.000000e+00
                                0
                                          0
                                                                            0
                                                    0 1.894908e-05
   CSI045 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                            0
                                0
                                          0
   CSI056 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
   CSI066 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                            0
##
           Otu08427 Otu08428 Otu08429 Otu08430 Otu08431 Otu08432 Otu08433
## CSI002
                            0
                                                                   0
                  0
                                      0
                                                0
                                                          0
                                                                             0
##
  CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                                0
                                                          0
                                                                   0
                                                                             0
                                      0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI056
                            0
                                      0
                                                0
                                                          0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
## CST066
                                                                             0
          Otu08434 Otu08435
                              Otu08436 Otu08437
                                                                Otu08439
##
                                                  Otu08438
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                            0
                                                0
##
  CSI034
                  0
                                      0
                                                          0 0.00000e+00
                            0
                                                0
  CSI045
                  0
                                      0
                                                          0 0.000000e+00
##
##
  CSI056
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
##
  CSI066
                  0
                            0
                                                0
                                                          0 1.916847e-05
##
               Otu08440 Otu08441
                                       Otu08442 Otu08443 Otu08444 Otu08445
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
   CSI023 2.041025e-05
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI034 0.000000e+00
                                                        0
                                                                  0
                                0 0.00000e+00
                                                                            0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
  CSI056 1.959286e-05
                                0 0.00000e+00
                                                        Λ
                                                                  0
                                                                            0
  CSI066 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
##
               Otu08446 Otu08447 Otu08448 Otu08449 Otu08450 Otu08451 Otu08452
  CSI002 0.000000e+00
                                                    0
                                0
                                          0
                                                              0
## CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
  CSI034 0.000000e+00
                                                                        Λ
                                          0
                                                              0
   CSI045 3.265093e-05
                                0
                                                    0
                                                                        0
                                                                                  0
  CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               Otu08453 Otu08454 Otu08455 Otu08456
                                                      Otu08457
                                                                Otu08458
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI056 1.959286e-05
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
```

```
## CSI066 0.000000e+00
                                                            0
                                                                      0
                                               Otu08463 Otu08464 Otu08465
##
          Ot:108460 Ot:108461
                                 Ot:1108462
## CSI002
                  0
                           0 0.000000e+00 1.362194e-05
                                                                0
## CSI013
                  Ω
                           0 0.000000e+00 6.391614e-05
                                                                0
                                                                          Λ
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0
                                                                          0
                  0
                           0 0.000000e+00 0.000000e+00
                                                                Ω
## CSI034
                                                                          0
                           0 0.000000e+00 0.000000e+00
  CSI045
                           0 0.000000e+00 0.000000e+00
## CSI056
                  0
                                                                0
## CSI066
                  0
                           0 0.000000e+00 0.000000e+00
                                                                Ω
                                                                          0
                            Otu08467 Otu08468 Otu08469 Otu08470
##
              Otu08466
                                                                       Otu08471
## CSI002 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                0 2.724387e-05
## CSI013 0.000000e+00 0.000000e+00
                                                       0
                                             0
                                                                0 0.000000e+00
  CSI023 0.000000e+00 8.164098e-05
                                             0
                                                       0
                                                                 0 0.000000e+00
## CSI034 1.894908e-05 0.000000e+00
                                             0
                                                                 0 0.00000e+00
                                                       0
   CSI045 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0.0.000000e+00
   CSI056 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
   CSI066 0.000000e+00 0.000000e+00
                                             0
                                                       0
                                                                 0 0.00000e+00
##
          0tu08472
                        Otu08473 Otu08474
                                               Otu08475 Otu08476 Otu08477
## CSI002
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                0
                                                                          0
## CSI013
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                 0
                                                                          0
##
  CSI023
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
                                                                          0
## CSI034
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
## CSI045
                                                                Ω
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                          0
  CSI056
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                 0
## CSI066
                  0 1.916847e-05
                                         0 0.000000e+00
                                                                0
                                                                          0
##
              Otu08478 Otu08479
                                      Otu08480 Otu08481
                                                             Otu08482 Otu08483
## CSI002 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
   CSI013 0.000000e+00
                               0 3.195807e-05
                                                       0 0.00000e+00
                                                                               0
  CSI023 0.000000e+00
                               0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
  CSI034 0.000000e+00
                               0 1.894908e-05
                                                       0 0.00000e+00
                                                                               0
  CSI045 0.000000e+00
                               0 0.00000e+00
                                                       0 0.000000e+00
                                                                               0
   CSI056 7.837144e-05
                               0 0.00000e+00
                                                       0 5.877858e-05
                                                                               0
   CSI066 0.000000e+00
                               0 0.00000e+00
                                                       0 0.00000e+00
          Otu08484 Otu08485 Otu08486 Otu08487 Otu08488 Otu08489 Otu08490
##
## CSI002
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI013
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
                  0
## CSI023
                  0
                           0
                                     0
                                                        0
                                                                  0
                                                                           0
## CSI034
                  Ω
                           0
                                                        0
                                                                  0
                                                                           0
                                     0
                                              0
                  0
                           0
                                                        0
  CSI045
                                                                           0
                           Λ
                                              0
                                                        0
## CSI056
                  \cap
                                     0
                                                                           0
   CST066
                           0
##
              Otu08491 Otu08492 Otu08493 Otu08494 Otu08495 Otu08496 Otu08497
  CSI002 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
                                                            0
                                                                                0
  CSI013 0.000000e+00
                               0
                                         0
                                                   0
                                                                      0
  CSI023 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
## CSI034 1.894908e-05
                               0
                                         0
                                                   0
                                                                                0
                                                            0
                                                                      0
   CSI045 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
   CSI056 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                                0
   CSI066 0.000000e+00
                               0
                                         0
                                                   0
                                                            0
                                                                               0
##
          Otu08498 Otu08499 Otu08500 Otu08501 Otu08502 Otu08503 Otu08504
## CSI002
                                     0
                  0
                           0
                                              0
                                                        0
                                                                  0
                                                                           0
                                                                  0
## CSI013
                  0
                           0
                                     0
                                              0
                                                        0
                                                                           0
## CSI023
                  0
                           0
                                     0
                                              0
                                                        0
                                                                  0
                                                                           0
## CSI034
                  0
                           0
                                     0
                                              0
                                                        0
                                                                           0
```

##	CSI045	0		0	0		0		0		0		0
##	CSI056	0		0	0		0		0		0		0
##	CSI066	0		0	0		0		0		0		0
##		Otu08505	Otu0850	6 Otu	08507	Otu(	08508	Otu	08509	Otu(	08510	Otu	08511
##	CSI002	0		0	0		0		0		0		0
##	CSI013	0		0	0		0		0		0		0
##	CSI023	0		0	0		0		0		0		0
##	CSI034	0		0	0		0		0		0		0
##	CSI045	0		0	0		0		0		0		0
##	CSI056	0		0	0		0		0		0		0
##	CSI066	0		0	0		0		0		0		0
##		Otu08512	Otu0851		08514	Otu(	08515				Otu08		Otu08518
##	CSI002	0		0	0		0		000006			0	0
##	CSI013	0		0	0		0		00000			0	0
##	CSI023	0		0	0		0		00000			0	0
##	CSI034	0		0	0		0		949086			0	0
##	CSI045	0		0	0		0		000006			0	0
##	CSI056	0		0	0		0		000006			0	0
##	CSI066	0	2540 0:	0	0	2504	0		000006		0. 0.	0	0
##	aa tooo		3519 Otu		UtuO		Utuo		Otu08		Utuo		Otu08525
##		0.0000006		0		0		0		0		0	0
##				0		0		0		0		0	0
##		0.0000006 5.6847256		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##		0.0000000		0		0		0		0		0	0
##		0.0000000		0		0		0		0		0	0
##	0.000	Otu08526		.08527	Otu08	3528	Otu0	8529	Otu08	3530	Otu08	3531	Otu08532
##	CSI002		0.00000		0000	0	0000	0	0000	0	0000	0	0
##	CSI013	0	0.00000	0e+00		0		0		0		0	0
##	CSI023	0	0.00000	0e+00		0		0		0		0	0
##	CSI034	0	0.00000	0e+00		0		0		0		0	0
##	CSI045	0	0.00000	0e+00		0		0		0		0	0
##	CSI056	0	3.91857	2e-05		0		0		0		0	0
##	CSI066	0	0.00000	0e+00		0		0		0		0	0
##		Otu08	3533 Otu	.08534	Otu08	3535	Otu0	8536	Otu08	3537	Otu08	3538	Otu08539
##		0.0000006		0		0		0		0		0	0
##	CSI013	0.0000006	e+00	0		0		0		0		0	0
		0.0000006		0		0		0		0		0	0
		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##		0.0000006		0		0		0		0		0	0
##	CS1066	1.9168476		0	,	0	25.40	0	0540 (	0	) F 4 4	0	0
##	CCTOO	Otu08540		08541				Utuo	8543 (	Jtuo			)tu08545
##	CSI002		0.00000						0				0000e+00
##	CSI013 CSI023		0.00000						0				0000e+00 0000e+00
##	CS1023		0.00000						0				0000e+00 0000e+00
##	CSI045		0.00000						0				0000e+00
##	CSI045		0.00000						0				0000e+00
##	CSI066		0.00000						0				0000e+00
##	321000	Otu08546								3550			Otu08552
##	CSI002	0		0	0	~ ~ `			000006			0	0
	CSI013	0		0	0				000006			0	0

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## CSI023
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                             0
                                                 0 0.00000e+00
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##
  CSI034
                   0
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                                                 0 0.00000e+00
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                                                 0 0.000000e+00
  CSI045
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  CSI056
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                                       0
                                                 0 0.000000e+00
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##
##
   CST066
                   0
                             0
                                       0
                                                   0.000000e+00
                                                                          0
           Otu08553 Otu08554 Otu08555 Otu08556
                                                        Otu08557 Otu08558 Otu08559
##
## CSI002
                   0
                             0
                                       0
                                                 0 0.00000e+00
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## CSI013
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                                       0
                                                 0 0.00000e+00
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##
  CSI023
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##
  CSI034
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   CSI045
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   CSI056
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##
##
   CSI066
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                             0
                                       0
                                                 0 3.833694e-05
                                                                          0
                     Otu08561
                               Otu08562 Otu08563 Otu08564 Otu08565 Otu08566
##
           Otu08560
## CSI002
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##
   CSI013
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   CSI023
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##
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##
   CSI034
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   CSI045
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##
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##
   CSI056
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##
   CST066
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##
               Otu08567 Otu08568
                                        Otu08569 Otu08570 Otu08571 Otu08572
## CSI002 0.000000e+00
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                                 0 0.00000e+00
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   CSI013 0.000000e+00
                                 0 0.00000e+00
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   CSI023 0.000000e+00
                                 0 0.00000e+00
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   CSI034 1.894908e-05
                                 0 7.579634e-05
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   CSI045 0.000000e+00
                                 0 0.000000e+00
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   CSI056 0.000000e+00
                                 0 0.000000e+00
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   CSI066 0.000000e+00
                                 0 0.000000e+00
                                                                               0
           Otu08573 Otu08574 Otu08575 Otu08576 Otu08577 Otu08578
##
                                                                        Otu08579
## CSI002
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##
   CSI013
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##
   CSI023
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##
  CSI034
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   CSI045
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##
   CSI056
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##
##
   CSI066
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##
           Otu08580
                     Otu08581
                               Otu08582 Otu08583
                                                        Otu08584
                                                                       Otu08585
## CSI002
                   0
                             0
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                                                 0 0.000000e+00 0.000000e+00
  CSI013
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                                                 0 0.000000e+00 0.000000e+00
##
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  CSI023
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                   0
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## CSI034
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                                                 0 0.000000e+00 0.000000e+00
                             0
                                                 0 0.000000e+00 0.000000e+00
##
   CSI045
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##
  CSI056
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                                                 0 0.000000e+00 3.918572e-05
                             0
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                                                 0 7.667389e-05 0.000000e+00
##
   CSI066
                   0
                     Otu08587
           Otu08586
                               Otu08588 Otu08589 Otu08590 Otu08591 Otu08592
##
## CSI002
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   CSI013
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   CSI023
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##
   CSI034
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   CSI045
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##
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## CSI056
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## CSI066
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##
           Otu08593 Otu08594 Otu08595 Otu08596 Otu08597 Otu08598 Otu08599
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	CSI002	0	0		0	0		0		0		0	
##	CSI013	0	0		0	0		0		0		0	
##	CSI023	0	0		0	0		0		0		0	
##	CSI034	0	0		0	0		0		0		0	
##	CSI045	0	0		0	0		0		0		0	
##	CSI056	0	0		0	0		0		0		0	
##	CSI066	0	0		0	0		0		0		0	
##			Otu08601	Otu0860			Otu		Otu(	)8605	Otu(	8606	
##	CSI002	0	0		0	0		0		0		0	
##	CSI013	0	0		0	0		0		0		0	
##	CSI023	0	0		0	0		0		0		0	
##	CSI034	0	0		0	0		0		0		0	
##	CSI045	0	0		0	0		0		0		0	
##	CSI056	0	0		0	0		0		0		0	
##	CSI066	0	0		0	0		0		0		0	
##		Otu08607	Otu08608	Otu0860	9 Oti	108610	Otu	08611	Otu	8612	Otu	8613	
##	CSI002	0	0		0	0		0		0		0	
##	CSI013	0	0		0	0		0		0		0	
##	CSI023	0	0		0	0		0		0		0	
##	CSI034	0	0		0	0		0		0		0	
##	CSI045	0	0		0	0		0		0		0	
##	CSI056	0	0		0	0		0		0		0	
##	CSI066	0	0		0	0		0		0		0	
##		Otu08614	Otu08615	Otu0861	.6 Oti	108617		Otu08	8618	Otu08	8619	Otu086	620
##	CSI002	0	0		0	0	0.0	00000€	+00		0		0
##	CSI013	0	0		0	0	0.0	000006	+00		0		0
##	CSI023	0	0		0	0	0.0	00000€	+00		0		0
##	CSI034	0	0		0	0	3.7	89817€	-05		0		0
##	CSI045	0	0		0	0	0.0	000006	+00		0		0
##	CSI056	0	0		0	0	0.0	00000€	+00		0		0
##	CSI066	0	0		0	0	0.0	00000€	+00		0		0
##		Otu08	3621 Otu0	3622 Oti	ເ08623	Otu08	3624	0tu08	8625	Otu08	3626	Otu086	627
##	CSI002	1.362194	e-05	0	(	)	0		0		0		0
##	CSI013	0.000000	e+00	0	(	)	0		0		0		0
##	CSI023	0.000000	e+00	0	(	)	0		0		0		0
##	CSI034	0.000000	e+00	0	(	)	0		0		0		0
##	CSI045	0.000000	e+00	0	(	)	0		0		0		0
##	CSI056	0.000000	e+00	0	(	)	0		0		0		0
##	CSI066	0.000000	e+00	0	(	)	0		0		0		0
##		Otu08628	Otu08	3629 Oti	ı08630	Otu08	3631	Otu08	3632	Otu08	3633	Otu086	634
##	CSI002	0	1.362194	e-05	(	)	0		0		0		0
##	CSI013	0	0.000000	e+00	(	)	0		0		0		0
##	CSI023	0	0.000000	e+00	(	)	0		0		0		0
	CSI034	0	0.000000	e+00	(	)	0		0		0		0
##	CSI045	0	0.000000	e+00	(	)	0		0		0		0
##	CSI056	0	0.000000	e+00	(	)	0		0		0		0
##	CSI066	0	0.000000	e+00	(	)	0		0		0		0
##			Otu08636		7 Oti	108638		0tu08	3639	C	tu08	3640	
##	CSI002	0	0		0		0.0	000006	+00	0.000	)000e	e+00	
##	CSI013	0	0		0			95807€					
	CSI023	0	0		0			00000€					
	CSI034	0	0		0			00000€					
	CSI045	0	0		0			000006					
	CSI056	0	0		0			000006					
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0 0.000000e+00 0.000000e+00
## CSI066
                           0
##
              Otu08641 Otu08642 Otu08643 Otu08644 Otu08645 Otu08646 Otu08647
## CSI002 4.086581e-05
                                0
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                                                             0
## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
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##
          Otu08648
                        Otu08649 Otu08650 Otu08651 Otu08652 Otu08653
## CSI002
                  0 0.00000e+00
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## CSI013
                  0 0.000000e+00
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## CSI023
                  0 0.000000e+00
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## CSI034
                                         0
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                  0 0.000000e+00
## CSI045
                  0 0.000000e+00
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## CSI056
                  0 3.918572e-05
                                         0
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## CSI066
                  0 0.000000e+00
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##
              Otu08654 Otu08655
                                      Otu08656 Otu08657 Otu08658 Otu08659
## CSI002 0.000000e+00
                            0 1.362194e-05
                                                       0
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## CSI013 3.195807e-05
                                0 9.587421e-05
                                                       0
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## CSI023 0.000000e+00
                              0 0.000000e+00
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## CSI034 0.000000e+00
                                0 0.000000e+00
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## CSI045 0.000000e+00
                                0 0.000000e+00
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## CSI056 0.000000e+00
                                0 0.000000e+00
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## CSI066 0.000000e+00
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                                0 0.00000e+00
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          Otu08660 Otu08661 Otu08662 Otu08663 Otu08664 Otu08665 Otu08666
## CSI002
                  0
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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          Otu08667 Otu08668 Otu08669 Otu08670 Otu08671 Otu08672 Otu08673
##
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
                  Ω
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## CSI066
##
          Otu08674 Otu08675 Otu08676 Otu08677 Otu08678 Otu08679 Otu08680
## CSI002
                  0
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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  CSI066
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##
          Otu08681
                        Otu08682 Otu08683 Otu08684 Otu08685 Otu08686 Otu08687
## CSI002
                  0 0.000000e+00
                                         0
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## CSI013
                  0 0.000000e+00
                  0 0.000000e+00
## CSI023
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## CSI034
                  0 1.894908e-05
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## CSI045
                  0 0.00000e+00
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## CST056
                  0 0.000000e+00
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                                                             0
## CSI066
                  0 0.00000e+00
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##
          Otu08688 Otu08689 Otu08690 Otu08691 Otu08692 Otu08693 Otu08694
## CSI002
                  0
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
                  0
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   CSI066
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                        Otu08696 Otu08697
##
          Otu08695
                                                Otu08698 Otu08699 Otu08700
## CSI002
                  0 0.000000e+00
                                          0 0.000000e+00
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                  0 0.00000e+00
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## CSI013
                                          0 0.000000e+00
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## CSI023
                  0 0.000000e+00
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## CSI034
                  0 0.00000e+00
                                          0 1.894908e-05
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                  0 0.000000e+00
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##
  CSI045
                                          0 0.00000e+00
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   CSI056
                  0 0.00000e+00
                                          0 0.00000e+00
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##
   CST066
                  0 0.00000e+00
                                          0 0.000000e+00
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          Otu08701 Otu08702 Otu08703 Otu08704 Otu08705 Otu08706
                                                                         Otu08707
## CSI002
                  Λ
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                                     Ω
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## CSI013
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## CSI023
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## CSI034
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## CST045
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  CSI056
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##
   CSI066
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               Otu08708 Otu08709 Otu08710 Otu08711 Otu08712 Otu08713
  CSI002 0.000000e+00
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  CSI013 0.000000e+00
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## CSI023 0.000000e+00
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   CSI034 1.894908e-05
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   CSI045 0.000000e+00
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  CSI056 0.000000e+00
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##
   CSI066 0.000000e+00
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##
               Otu08714 Otu08715 Otu08716 Otu08717 Otu08718 Otu08719 Otu08720
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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   CSI066 0.000000e+00
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          Otu08721 Otu08722 Otu08723 Otu08724 Otu08725
##
                                                               Otu08726 Otu08727
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                                                                                 0
##
          Otu08728 Otu08729 Otu08730 Otu08731 Otu08732 Otu08733
                                                                         Otu08734
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
```

```
## CSI023
                   0
                             0
                                                                      0 0.00000e+00
##
  CSI034
                   0
                             0
                                                 0
                                                           0
                                                                      0 1.894908e-05
                                       0
## CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
  CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
##
   CST066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
           Otu08735 Otu08736 Otu08737 Otu08738 Otu08739 Otu08740 Otu08741
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                                                                      0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
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##
  CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                                                 0
                                                           0
                                                                      0
##
  CSI034
                   0
                             0
                                       0
                                                                                0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
   CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
##
   CSI066
                   0
                             0
                                       0
                                                 0
                                                                      0
                                                                                0
                          Otu08743 Otu08744 Otu08745
##
           0tu08742
                                                            Otu08746 Otu08747
## CSI002
                   0 0.000000e+00
                                           0
                                                      0 0.000000e+00
                                                                               0
##
   CSI013
                   0 0.00000e+00
                                            0
                                                      0 0.00000e+00
                                                                               0
                   0 0.000000e+00
                                           0
                                                      0 0.000000e+00
                                                                               0
##
   CSI023
   CSI034
                   0 0.000000e+00
                                            0
                                                        0.000000e+00
                                                                               0
   CSI045
                   0 3.265093e-05
                                           0
                                                       6.530186e-05
                                                                               0
##
##
   CSI056
                   0 0.00000e+00
                                            0
                                                       0.000000e+00
                                                                               0
##
   CST066
                   0 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                               0
##
               Otu08748 Otu08749 Otu08750 Otu08751 Otu08752 Otu08753 Otu08754
## CSI002 4.086581e-05
                                 0
                                                      0
                                                                0
                                                                          0
                                                                                    0
                                            0
   CSI013 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
                                                                                    0
   CSI023 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
   CSI034 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI045 0.000000e+00
                                 0
                                           0
                                                      0
                                                                0
                                                                          0
                                                                                    0
   CSI056 0.000000e+00
                                 0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                    0
                                 0
                                                      0
                                                                0
   CSI066 0.000000e+00
                                            0
                                                                          0
                                                                                    0
##
##
           Otu08755 Otu08756 Otu08757 Otu08758 Otu08759 Otu08760
                                                                        Otu08761
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
##
   CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
   CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
  CSI034
                                       0
##
  CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0
                                                                                0
  CSI056
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
                                       0
##
   CSI066
                   0
                             0
                                                 0
                                                           0
                                                                      0
                                                                                0
##
           Otu08762 Otu08763
                                    Otu08764 Otu08765 Otu08766 Otu08767 Otu08768
## CSI002
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                             0 0.000000e+00
  CSI013
                   0
                                                      0
                                                                0
                                                                          0
                                                                                    0
##
## CSI023
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                                    0
## CSI034
                   0
                               3.789817e-05
                                                      0
                                                                0
                                                                          0
                                                                                    0
                             0
                                                                0
   CSI045
                   0
                               0.000000e+00
                                                      0
                                                                          0
                                                                                    0
                                                      0
                                                                0
                                                                                    0
##
  CSI056
                   0
                             0 0.00000e+00
                                                                          Λ
                             0 0.000000e+00
                                                      0
                                                                0
                                                                                    0
##
   CSI066
                               Otu08771 Otu08772 Otu08773 Otu08774
           Otu08769 Otu08770
                                                                            Otu08775
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 2.724387e-05
   CSI013
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
##
   CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
   CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.00000e+00
                   0
                             0
                                       0
                                                 0
                                                           0
##
   CSI045
                                                                      0.0.000000e+00
## CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
## CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                      0 0.000000e+00
##
               Otu08776 Otu08777 Otu08778 Otu08779 Otu08780 Otu08781 Otu08782
```

	aa tooo			•	•	•	_	_	•
##		0.0000006		0	0	0	0	0	0
##		3.1958076		0	0	0	0	0	0
##				0	0	0	0	0	0
##		0.000000		0	0	0	0	0	0
##		0.0000000		0	0	0	0	0	0
##		3.833694		0	0	0	0	0	0
##	C21000		Otu08784	-	0 Otu08786	Otu08787	_	-	08789
##	CSI002	0		0 0 0 0 0 0	0 0 0 0 0 0	0	Utu	0 00 00 00 00 00 00 00 00 00 00 00 00 0	
##	CS1002	0	0	0	0	0		0	0
##	CSI013	0	0	0	0	0		0	0
##	CSI023	0	0	0	0	0		0	0
##	CSI034	0	0	0	0	0		0	0
##	CSI043	0	0	0	0	0		0	0
##	CSI066	0	0	0	0	0		0	0
##	ODIOOO	Otu08790	Otu08791	Otu08792	-	•	2794	Otu08795	
##	CSI002	0	0	0	0	0.000000		0	0
##	CSI013	0	0	0	0	9.587421		0	0
##	CSI023	0	0	0	0	0.000000		0	0
##	CSI034	0	0	0	0	0.000000		0	0
##	CSI045	0	0	0	0	0.000000		0	0
##	CSI056	0	0	0	0	0.000000		0	0
##	CSI066	0	0	0	0	0.000000		0	0
##		Otu08797	Otu08798	Otu08799	Otu08800	Otu08801	Otu(	08802 Otu	08803
##	CSI002	0	0	0	0	0		0	0
##	CSI013	0	0	0	0	0		0	0
##	CSI023	0	0	0	0	0		0	0
##	CSI034	0	0	0	0	0		0	0
##	CSI045	0	0	0	0	0		0	0
##	CSI056	0	0	0	0	0		0	0
##	CSI066	0	0	0	0	0		0	0
##			Otu08805	Otu08806	Otu08			Otu08	
##	CSI002	0	0		0.0000006			0.000000	
##	CSI013	0	0	0	0.0000006			3.195807	
##	CSI023	0	0	0	0.0000006			0.000000	
##	CSI034	0	0	0	0.000000		0	0.000000	
	CSI045	0	0	0	0.000000		0	0.000000	
	CSI056	0	0		0.000000			0.000000	
##	CSI066	0+1100010	0 Otu08811		0.000000			0.000000	Otu08816
	CSI002	0.000010	0	0	0			62194e-05	0
	CSI013	0	0	0	0			00000e+00	0
	CSI023	0	0	0	0			00000e+00	0
	CSI034	0	0	0	0			94908e-05	0
	CSI045	0	0	0	0			00000e+00	0
	CSI056	0	0	0	0			00000e+00	0
	CSI066	0	0	0	0	0	0.00	00000e+00	0
##		Otu08817	Otu08818	Otu08819	Otu08820	Otu08821			Otu08823
##	CSI002	0	0	0	0	0	0.00	00000e+00	0
##	CSI013	0	0	0	0	0	3.19	95807e-05	0
##	CSI023	0	0	0	0	0	0.00	00000e+00	0
	CSI034	0	0	0	0			00000e+00	0
	CSI045	0	0	0	0			00000e+00	0
##	CSI056	0	0	0	0	0	0.00	00000e+00	0

```
## CSI066
                  0
                           0
                                     0
                                              0
                                                        0 0.00000e+00
##
          Otu08824 Otu08825 Otu08826 Otu08827 Otu08828 Otu08829 Otu08830
## CSI002
                           0
                                     0
                                               0
                                                        0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
                            0
## CSI034
                  0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI045
                  0
                            0
                                                                            0
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
## CSI066
                  0
                            0
                                     0
                                               0
                                                         0
          Otu08831 Otu08832 Otu08833 Otu08834 Otu08835 Otu08836 Otu08837
##
## CSI002
                  0
                           0
                                     0
                                               0
                                                         0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
## CSI045
                  0
                            0
                                               0
                                                         0
                                     0
                                                                  0
                                                                            0
## CSI056
                  0
                            0
                                               0
                                                         0
                            0
                                               0
                                                         0
## CSI066
                  0
                                     0
                                                                  0
                                                                            0
          Otu08838 Otu08839 Otu08840 Otu08841 Otu08842 Otu08843 Otu08844
## CST002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI023
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI034
## CSI045
                            0
                  Λ
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI056
                            0
                                                         0
## CSI066
                  0
                            0
                                     0
                                               0
              Otu08845
                            Otu08846
                                          Otu08847 Otu08848 Otu08849 Otu08850
## CSI002 0.000000e+00 0.000000e+00 4.086581e-05
                                                            0
                                                                     0
## CSI013 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
                                                                               0
## CSI023 0.000000e+00 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
## CSI034 0.000000e+00 1.894908e-05 0.000000e+00
                                                                               0
## CSI045 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
                                                                     0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00
   CSI066 0.000000e+00 0.000000e+00 0.000000e+00
                                                            0
##
              Otu08851 Otu08852
                                      Otu08853 Otu08854 Otu08855 Otu08856
## CSI002 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
## CSI013 9.587421e-05
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI023 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI034 0.000000e+00
                                0 0.000000e+00
                                                       Λ
                                                                 Ω
                                                                           0
## CSI045 0.000000e+00
                                0 0.000000e+00
                                                                 0
                                                       0
## CSI056 0.000000e+00
                                0 1.959286e-05
                                                       Ω
## CSI066 0.000000e+00
                                0 0.000000e+00
##
              Otu08857 Otu08858
                                      Otu08859 Otu08860 Otu08861 Otu08862
                                0 0.000000e+00
## CSI002 0.000000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
## CSI013 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                           0
## CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
## CSI034 3.789817e-05
                                0 3.789817e-05
                                                       0
                                                                 0
                                                                           0
## CSI045 0.000000e+00
                                0 0.000000e+00
                                                       0
                                                                 0
## CSI056 0.000000e+00
                                0 0.000000e+00
                                0 0.000000e+00
  CSI066 0.000000e+00
                                                       0
                                                                 0
          Otu08863 Otu08864
                                  Otu08865 Otu08866 Otu08867 Otu08868
## CSI002
                  0
                           0 0.000000e+00
                                                   0
                                                                      0
                                                             0
## CSI013
                  0
                           0 3.195807e-05
                                                   0
                                                             0
                                                                      0
## CSI023
                  0
                           0 0.000000e+00
                                                   0
                                                             0
                                                                      0
## CSI034
                  0
                           0 3.789817e-05
                                                   0
                                                             0
                                                                      0
```

```
## CSI045
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
## CST056
                  0
                            0 0.000000e+00
                                                    0
                                                                        0
                                                              0
## CSI066
                  0
                            0 0.000000e+00
                                                              0
                                                                        0
               Otu08869 Otu08870
##
                                       Otu08871
                                                                   0 \pm 1108873
                                                     Otu08872
## CSI002 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI013 3.195807e-05
                                0 0.000000e+00 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
                                0 3.789817e-05 0.000000e+00 0.000000e+00
## CSI034 0.000000e+00
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
                                0 0.000000e+00 0.000000e+00 1.959286e-05
   CSI056 0.000000e+00
   CSI066 0.000000e+00
                                0 0.000000e+00 3.833694e-05 0.000000e+00
          Otu08874 Otu08875 Otu08876
                                            Otu08877 Otu08878 Otu08879 Otu08880
##
## CSI002
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
## CSI013
                            0
                                                              0
                                                                        0
                                                                                  0
                  0
                                      0 0.00000e+00
## CSI023
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
## CSI034
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
                                                                        0
                                                                                  0
##
  CSI045
                                      0 0.00000e+00
   CSI056
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
##
  CST066
                  0
                                                                                  0
##
               Otu08881 Otu08882 Otu08883
                                                 Otu08884 Otu08885 Otu08886
## CSI002 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
## CSI013 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
## CSI023 2.041025e-05
                                                                  0
                                0
                                          0 0.00000e+00
                                                                            0
## CSI034 0.000000e+00
                                0
                                                                  0
                                          0 3.789817e-05
                                                                            0
                                0
                                                                  0
                                                                            0
## CSI045 0.000000e+00
                                          0 0.000000e+00
  CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
  CSI066 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
          Otu08887 Otu08888 Otu08889 Otu08890 Otu08891 Otu08892 Otu08893
##
## CSI002
                  0
                            0
                                                         0
                                                                   0
                                      0
                                                0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
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                                                          0
                                                                   0
                                                                             0
##
  CST034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                                             0
  CSI056
                            0
##
                  0
                                      0
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                                                          0
                                                                   0
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                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
##
   CSI066
          Otu08894 Otu08895 Otu08896 Otu08897 Otu08898 Otu08899
##
                                                                     Ot:1108900
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                             0
## CSI013
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
## CSI023
                  0
                            0
                                                0
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                                      0
                                                                   0
                                                                             0
                  0
                            Λ
                                                0
                                                          0
                                                                   0
## CSI034
                                      0
                                                                             0
                            0
                                                0
                                                          0
                                                                             0
  CSI045
                  0
## CSI056
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   \cap
                                                                             0
          Otu08901 Otu08902 Otu08903
                                            Otu08904 Otu08905 Otu08906 Otu08907
##
## CSI002
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
## CSI013
                            0
                                                              0
                                                                        0
                                                                                  0
                  0
                                      0 0.00000e+00
## CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                                              0
## CSI034
                                      0 1.894908e-05
                                                                        0
                                                                                  0
## CSI045
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
  CSI056
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
                  0
                            0
                                      0 0.000000e+00
                                                                                  0
##
                                                                        0
##
          Otu08908 Otu08909 Otu08910 Otu08911 Otu08912
                                                                Otu08913 Otu08914
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                  0
## CSI013
                  0
                            0
                                      0
                                                0
                                                         0 0.000000e+00
                                                                                  0
```

	aa tooo	•	_	_	•	•				^
##	CSI023	0	0	0	0	0	0.000000			0
##	CSI034	0	0	0	0	0	0.000000			0
##	CSI045	0	0	0	0	0	0.000000			0
##	CSI056	0	0	0	0	0	5.8778586			0
##	CSI066	0	0	0	0	0 Otu08919	0.0000006		0001	U
##	CSI002	Otu08915	Otu08916	Otu08917	Otu08918		Otu08920	Utuc		
##	CS1002	0	0	0	0	0	0		0	
##	CSI013	0	0	0	0	0	0		0	
##	CSI023	0	0	0	0	0	0		0	
##	CSI045	0	0	0	0	0	0		0	
##	CSI056	0	0	0	0	0	0		0	
##	CSI066	0	0	0	0	0	0		0	
##	ODIOOO	Otu08922	Otu08923	Otu08924	Otu08925	Otu08926	Otu08927	Ω±110	8928	
##	CSI002	0	0	0	0	0	0	oud	0	
##	CSI013	0	0	0	0	0	0		0	
##	CSI023	0	0	0	0	0	0		0	
##	CSI034	0	0	0	0	0	0		0	
##	CSI045	0	0	0	0	0	0		0	
##	CSI056	0	0	0	0	0	0		0	
##	CSI066	0	0	0	0	0	0		0	
##		Otu08929	Otu08930	Otu08931	Otu08932	Otu08	3933 Otu08	3934	Otu089	35
##	CSI002	0	0	0	0	4.0865816	e-05	0		0
##	CSI013	0	0	0	0	0.0000006	e+00	0		0
##	CSI023	0	0	0	0	0.0000006	e+00	0		0
##	CSI034	0	0	0	0	0.0000006	e+00	0		0
##	CSI045	0	0	0	0	0.0000006	0.000000e+00 0			0
##	CSI056	0	0	0	0	0.000000e+00 0			0	
##	CSI066	0	0	0	0	0.0000006	+00 0			0
##		Otu08936	Otu08937	Otu08938	Otu08939	Otu08940	Otu08941 Otu0		8942	
##	CSI002	0	0	0	0	0	0		0	
##	CSI013	0	0	0	0	0	0		0	
##	CSI023	0	0	0	0	0	0		0	
##	CSI034	0	0	0	0	0	0		0	
##	CSI045	0	0	0	0	0	0		0	
##	CSI056	0	0	0	0	0	0		0	
##	CSI066	0	0	0	0	0	0		0	
##	aa tooo			Otu08945				0 00	Otu089	
	CSI002	0	0	0	0	0			0000e+	
	CSI013 CSI023	0	0	0	0	0			)5807e- )0000e+	
	CS1023	0	0	0	0	0			0000e+ 0000e+	
	CSI034	0	0	0	0	0			0000e+	
	CSI045	0	0	0	0	0			0000e+	
	CSI066	0	0	0	0	0			0000c+	
##	ODIOOO			Otu08952					Otu089	
	CSI002	0	0	0	0		1.362194		00000	0
	CSI013	0	0	0	0		0.0000000			0
	CSI023	0	0	0	0		0.0000000			0
	CSI034	0	0	0	0		0.0000000			0
	CSI045	0	0	0	0		0.0000000			0
	CSI056	0	0	0	0		0.0000006			0
	CSI066	0	0	0	0		0.0000006			0
##		Otu08957	Otu08958	Otu08959	Otu08	3960 Otu08	3961 Otu08	3962	Otu089	63

##	CSI002	0	0	0	0.000000			0	0		0
##	CSI013	0	0	0	0.000000			0	0		0
##	CSI023	0	0	0	0.000000			0	0		0
##	CSI034	0	0	0	0.000000			0	0		0
##	CSI045	0	0	0	0.000000			0	0		0
##	CSI056	0	0	0	0.000000			0	0		0
##	CSI066	0	0	0	0.000000			0	0		0
##		Otu08964	Otu08965		3966 Otu0		u0896	38 Otu08	3969	Otu089	970
##	CSI002	0	0			0		0	0		0
##	CSI013	0	0	9.5874216		0		0	0		0
##	CSI023	0	0	0.0000006		0		0	0		0
##	CSI034	0	0	0.0000006		0		0	0		0
##	CSI045	0	0	0.0000006		0		0	0		0
##	CSI056	0	0	0.0000006	e+00	0		0	0		0
##	CSI066	0	0	0.000000	e+00	0		0	0		0
##		Otu08971	Otu08972	Otu08973	Otu08974	Otu089	75 01	tu08976	Otu0	8977	
##	CSI002	0	0	0	0		0	0		0	
##	CSI013	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
##	CSI034	0	0	0	0		0	0		0	
##	CSI045	0	0	0	0		0	0		0	
##	CSI056	0	0	0	0		0	0		0	
##	CSI066	0	0	0	0		0	0		0	
##		Otu08978	Otu08979	Otu08980	Otu08981	Otu089	82 01	tu08983	Otu0	8984	
##	CSI002	0	0	0	0		0	0		0	
##	CSI013	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
##	CSI034	0	0	0	0		0	0		0	
##	CSI045	0	0	0	0		0	0		0	
##	CSI056	0	0	0	0		0	0		0	
##	CSI066	0	0	0	0		0	0		0	
##		Otu08985	Otu08986	Otu08987	Otu08988	Otu089	89 01	tu08990	Otu0	8991	
##	CSI002	0	0	0	0		0	0		0	
##	CSI013	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
##	CSI034	0	0	0	0		0	0		0	
##	CSI045	0	0	0	0		0	0		0	
##	CSI056	0	0	0	0		0	0		0	
	CSI066	0	0	0	0		0	0		0	
##		Otu08992	Otu08993	Otu08994	Otu08995	Otu089	96	Otu08	3997	Otu089	98
##	CSI002	0	0	0	0			.000000€	e+00		0
##	CSI013	0	0	0	0		0 0	.0000006	e+00		0
	CSI023	0	0	0	0			.000000€			0
	CSI034	0	0	0	0			.0000006			0
	CSI045	0	0	0	0			.0000006			0
	CSI056	0	0	0	0			.000000€			0
	CSI066	0	0	0	0			. 0000006			0
##		-	Otu09000	-		Ot11090				9005	•
	CSI002	0	0	0	0	20200	0	0	2240	0	
	CSI013	0	0	0	0		0	0		0	
	CSI023	0	0	0	0		0	0		0	
	CSI023	0	0	0	0		0	0		0	
	CSI045	0	0	0	0		0	0		0	
	CSI056	0	0	0	0		0	0		0	
π#	001000	U	U	U	O		U	U		U	

##	CSI066	0	0	0		0		0		0		0
##		Otu09006	Otu09007	Otu0	9008	Otu09	9009	Otu09	9010	Otu09	9011	Otu09012
##	CSI002	0	0	1.362194	e-05		0		0		0	0
##	CSI013	0	0	0.000000	e+00		0		0		0	0
##	CSI023	0	0	0.000000	e+00		0		0		0	0
##	CSI034	0	0	0.000000	e+00		0		0		0	0
##	CSI045	0	0	0.000000	e+00		0		0		0	0
##	CSI056	0	0	0.000000	e+00		0		0		0	0
##	CSI066	0	0	0.000000	e+00		0		0		0	0
##		Otu09013	Otu09014	Otu09015	Otu(	09016	Otu(	09017	Otu(			Otu09019
##	CSI002	0	0	0		0		0		0		00000e+00
##	CSI013	0	0	0		0		0		0		91614e-05
##	CSI023	0	0	0		0		0		0		00000e+00
##	CSI034	0	0	0		0		0		0		00000e+00
##	CSI045	0	0	0		0		0		0		00000e+00
##	CSI056	0	0	0		0		0		0		00000e+00
##	CSI066	0	0	0		0		0	2004			00000e+00
##	aa tooo		Otu09021		0 00			Utuos		UtuOs		Otu09026
##	CSI002	0	0	0		00000e			0		0	0
##	CSI013 CSI023	0	0	0		00000€ 00000€			0		0	0
##	CSI023	0	0	0		00000e			0		0	0
##	CSI034	0	0	0		)0000€ )0000€			0		0	0
##	CSI056	0	0	0		37144e			0		0	0
##	CSI066	0	0	0		00000e			0		0	0
##	ODIOOO	Otu09027	-	9028 Otu09				Ω±11Ω9	•	N±1109	•	Otu09033
##	CSI002		0.0000000		0	oudo	0	oudo	0	oudot	0	0
##	CSI013	0	0.0000000		0		0		0		0	0
##	CSI023	0	0.0000000		0		0		0		0	0
##	CSI034	0	0.0000000		0		0		0		0	0
##	CSI045	0	0.0000000	0000	0		0		0		0	0
##	CSI056	0	0.0000000	0000	0		0		0		0	0
##	CSI066	0	0.0000000	0000	0		0		0		0	0
##		Otu09034	Otu09035	Otu09036	Otu(	09037	Otu	09038	Otu	9039	Otu	9040
##	CSI002	0	0	0		0		0		0		0
##	CSI013	0	0	0		0		0		0		0
	CSI023	0	0	0		0		0		0		0
	CSI034	0	0	0		0		0		0		0
	CSI045	0	0	0		0		0		0		0
	CSI056	0	0	0		0		0		0		0
	CSI066	0	0	0		0		0		0		0
##	aa tooo		Otu09042			Otu09				9045 (	JtuOS	
	CSI002	0		0.000000				0.000				0
	CSI013	0		3.195807				0.000				0
	CSI023 CSI034	0		0.0000000				0.000				0
	CSI034	0		0.0000000				0.000				0
	CSI045	0		0.0000000				0.000				0
	CSI066	0		0.0000000				0.000				0
##	251000		Otu09048			)9050					()±.11(	-
	CSI002	0	0 0 0 0 0	0	5540	0	2340	0	Suc	0	5540	0
	CSI013	0	0	0		0		0		0		0
	CSI023	0	0	0		0		0		0		0
	CSI034	0	0	0		0		0		0		0
			•	·		-		-		-		-

##	CSI045	0	0		0		0		0		0		0	
##	CSI056	0	0		0		0		0		0		0	
##	CSI066	0	0		0		0		0		0		0	
##		Otu09054	Otu09	9055	Otu09	9056	Otu09	9057	Otu09	9058	Otu09	9059	Otu090	060
##	CSI002	0	5.448775	e-05		0		0		0		0		0
##	CSI013	0	0.000000	00+e		0		0		0		0		0
##	CSI023	0	0.000000	00+e		0		0		0		0		0
##	CSI034	0	0.000000	e+00		0		0		0		0		0
##	CSI045	0	0.000000			0		0		0		0		0
##	CSI056	0	0.000000			0		0		0		0		0
##	CSI066	0	0.000000			0		0		0		0		0
##	aa tooo	Otu09061		Otu(		Otu(		Otu(		Otu(		Otu(	09067	
##	CSI002	0	0		0		0		0		0		0	
##	CSI013	0	0		0		0		0		0		0	
##	CSI023 CSI034	0	0		0		0		0		0		0	
##	CSI034	0	0		0		0		0		0		0	
##	CSI045	0	0		0		0		0		0		0	
##	CSI066	0	0		0		0		0		0		0	
##	ODIOOO	·	Otu09069	Ot.110	•	O±.11(	09071	Ω±.11(	v	Ω±.11(	09073	Ot.110	09074	
	CSI002	0	0	o o u	0	ou	0	oou	0	oou	0	oou	0	
	CSI013	0	0		0		0		0		0		0	
	CSI023	0	0		0		0		0		0		0	
##	CSI034	0	0		0		0		0		0		0	
##	CSI045	0	0		0		0		0		0		0	
##	CSI056	0	0		0		0		0		0		0	
##	CSI066	0	0		0		0		0		0		0	
##		Otu09075	Otu09076	0+11	20077	0+	20070	0+	20070		0. 00		0. 00	
		0000013	0109076	Utu	09077	Utu	09078	Utu	09079		Utuos	9080	Otu090	081
##	CSI002	0	0	ocu	0	υται	09078	Utu		0.00	00000		Utu090	081
## ##	CSI002 CSI013			υταί		UTU		otu				e+00	Utu090	
	CSI013 CSI023	0	0	ocu	0	Utu	0	otu	0	0.00	000006 000006 110256	e+00 e+00 e-05	Utu090	0
## ## ##	CSI013 CSI023 CSI034	0 0 0 0	0	ocu	0 0 0	Utu	0 0 0	otuc	0	0.00 2.04 0.00	000006 000006 110256 000006	e+00 e+00 e-05 e+00	Utu090	0 0 0 0
## ## ## ##	CSI013 CSI023 CSI034 CSI045	0 0 0 0	0 0 0 0 0	ocu	0 0 0 0	Otu	0 0 0 0	ocuc	0 0 0 0 0	0.00 2.04 0.00 0.00	000006 000006 110256 000006	e+00 e+00 e-05 e+00 e+00	Utu090	0 0 0 0
## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0 0	0 0 0 0 0	Ocu	0 0 0 0 0	Otuc	0 0 0 0 0	ocuc	0 0 0 0 0	0.00 2.04 0.00 0.00	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00	Utu090	0 0 0 0 0
## ## ## ## ##	CSI013 CSI023 CSI034 CSI045	0 0 0 0 0	0 0 0 0 0	ocu	0 0 0 0 0		0 0 0 0 0		0 0 0 0 0	0.00 2.04 0.00 0.00 0.00	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00		0 0 0 0 0
## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0	9084	0 0 0 0 0	9085	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00	Otu090	0 0 0 0 0 0 0
## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0.00	0 0 0 0 0 0 0 0 0 0 0	9084 e+00	0 0 0 0 0	9085 0	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00 e+00		0 0 0 0 0 0 0
## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00	0 0 0 0 0	9085 0 0	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 9086 0	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00 0087		0 0 0 0 0 0 0 0 0 88 0
## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00	0 0 0 0 0	9085 0 0	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 9086 0	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00 00000000000000000		0 0 0 0 0 0 0 0 88 0 0
## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034	0 0 0 0 0 0 0 0 0tu09082 0 0	0 0 0 0 0 0 0 0 0tu09083 0 0	0.00 0.00 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00	0 0 0 0 0	9085 0 0 0	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 9086 0	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00 0 0		0 0 0 0 0 0 0 0 0 88 0 0
## ## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0tu09083 0 0	0.00 0.00 0.00 0.00 3.20	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 9+00 9+00 9+00 9+00 9-05	0 0 0 0 0	9085 0 0 0	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 9086 0 0	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0 0 0 0 0 0tu09082 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 9+00 9+00 9+00 9+00 9-05 9+00	0 0 0 0 0	9085 0 0 0	0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 9086 0	000006 000006 110256 000006 000006	e+00 e+00 e-05 e+00 e+00 e+00 e+00 0 0		0 0 0 0 0 0 0 0 0 88 0 0
## ## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	000006 000006 110256 000006 000006 000006 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	000006 000006 110256 000006 000006 000006 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	000000 000000 41025 000000 000000 000000 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI066 CSI066	0 0 0 0 0 0 0 0tu09082 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu09083 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	000000 000000 11025 000000 000000 000000 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090 09095 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu09083 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	000006 000006 110256 000006 000006 000006 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090 09095 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI022	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	000006 000006 110256 000006 000006 000006 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090 09095 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI006 CSI002 CSI013 CSI023 CSI034 CSI056 CSI002 CSI013 CSI002 CSI013 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 3.20 0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e-05 e+00 e+00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	0000006 0000006 110256 000006 000006 000006 0tu09	e+00 e+00 e-05 e+00 e+00 e+00 e+00 o-00 0 0	Otu090 09095 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
#######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI006 CSI002 CSI013 CSI023 CSI034 CSI056 CSI006 CSI002 CSI013 CSI034 CSI045 CSI005	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 9+00 9+00 9+00 9-05 9+00 0tu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.02 0.00 0.00 0.00 0.00 0.00 0.00	000000e 000000e 11025e 00000e 00000e 00000e 00000e 00000e 000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0tu090 09095 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
###########################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI034 CSI045 CSI066 CSI002 CSI013 CSI002 CSI013 CSI002 CSI013 CSI006 CSI006 CSI006 CSI006	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 Dtu0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 e+00 e+00 e+00 e+00 e+00 e+00 Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	00000000000000000000000000000000000000	9+00 9+00 9-05 9+00 9+00 9+00 9087 0 0 0 0 0	0tu090 09095 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
###############################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI034 CSI045 CSI066 CSI002 CSI013 CSI002 CSI013 CSI002 CSI013 CSI002 CSI0166 CSI002 CSI0166 CSI002 CSI017 CSI002 CSI018 CSI002 CSI004 CSI005 CSI0066 CSI006	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 0.00 0.00 0.00 0.00 0.00 Otu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9084 9+00 9+00 9+00 9-05 9+00 0tu(	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9085 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.00 2.04 0.00 0.00 0.00 0.00 0.00 0.00	00000000000000000000000000000000000000	000000	0tu090 09095 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```
## CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI034 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                                 7.837144e-05
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.000000e+00
           Otu09102 Otu09103 Otu09104 Otu09105 Otu09106 Otu09107 Otu09108
##
                             0
                                                 0
                                                           0
## CSI002
                   0
                                       0
                                                                     0
                                                                               0
## CSI013
                             0
                                                           0
                                                                     0
                                                                               0
                   0
                                       0
                                                 0
   CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                     0
##
  CSI034
                                       0
                                                                               0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                 0
                                                           0
                                                                     0
   CSI056
                   0
                             0
                                       0
                                                                               0
##
##
   CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu09109
                    Otu09110
                               Otu09111
                                         Otu09112
##
                                                   Otu09113 Otu09114
                                                                           Otu09115
##
  CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
##
   CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
   CSI023
                   0
                             0
                                                           0
##
                                       0
                                                 0
                                                                     0 0.00000e+00
   CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 1.894908e-05
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
##
                                                                     0.000000e+00
##
   CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.00000e+00
##
   CST066
                   Λ
                             0
                                       0
                                                 0
                                                           0
                                                                     0 0.000000e+00
##
           Otu09116
                    Otu09117
                               Otu09118 Otu09119
                                                   Otu09120
                                                                 Otu09121 Otu09122
## CSI002
                             0
                                                           0 2.724387e-05
                                                                                   Λ
                   0
                                       0
                                                 0
   CSI013
                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
                                       0
                                                                                   0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
   CSI034
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                   0
                                      0
   CSI045
                   0
                             0
                                                 0
                                                           0 0.00000e+00
                                                                                   0
##
                   0
                             0
                                                 0
                                                            0.000000e+00
                                                                                   0
   CSI056
                                       0
                             0
                                                 0
                                                                                   0
   CSI066
                   0
                                       0
                                                           0 0.00000e+00
##
                               Otu09125
##
           Otu09123
                    Otu09124
                                         Otu09126
                                                  Otu09127
                                                             Otu09128 Otu09129
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                           0
                                                                     0
##
   CSI023
                   0
                             0
                                       0
                                                 0
                                                                               0
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI034
                                       0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu09130
                    Otu09131
                               Otu09132 Otu09133
                                                  Otu09134
                                                                 Otu09135
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                             0
   CSI013
                   0
                                       0
                                                 0
                                                           0 0.000000e+00
##
   CSI023
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
  CSI034
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
##
                             0
                                                 0
##
   CSI045
                   0
                                       0
                                                           0 0.00000e+00
                             0
                                       Λ
                                                 0
##
   CSI056
                   Λ
                                                           0 0.00000e+00
   CSI066
                             0
##
                                                           0 3.833694e-05
##
               Otu09136 Otu09137
                                        Otu09138
                                                      Otu09139
                                                                     Otu09140
   CSI002 0.000000e+00
                                 0 0.000000e+00 0.000000e+00 2.724387e-05
                                 0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI013 0.000000e+00
   CSI023 0.000000e+00
                                 0 0.000000e+00 2.041025e-05 0.000000e+00
   CSI034 0.000000e+00
                                 0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI045 0.000000e+00
                                 0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                 0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI066 0.000000e+00
                                 0 1.916847e-05 0.000000e+00 0.000000e+00
##
           Otu09141
                         0tu09142
                                        Otu09143
                                                      Otu09144 Otu09145 Otu09146
```

```
## CSI002
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                                 0
   CST013
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
                                                                       0
                                                                                 0
   CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
   CSI034
                  0 1.894908e-05 0.000000e+00 0.000000e+00
                                                                       0
##
                                                                                 0
##
   CSI045
                    0.000000e+00 0.000000e+00 3.265093e-05
                                                                       0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI056
                                                                       0
                                                                                 0
                  0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI066
                                                                       0
                                                                                 0
##
           Otu09147 Otu09148
                                   Otu09149 Otu09150 Otu09151
                                                                     0tu09152
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
##
   CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.00000e+00
  CSI023
                  0
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
                  0
                                                    0
##
  CSI034
                            0 0.00000e+00
                                                                1.894908e-05
##
   CSI045
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
                                                              0 0.00000e+00
##
   CSI056
                            0 0.000000e+00
                                                    0
   CSI066
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
##
##
           Otu09153 Otu09154
                              Otu09155 Otu09156 Otu09157 Otu09158 Otu09159
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI023
                            0
                                                          0
                                                                    0
                                                                              0
##
                  0
                                      0
                                                0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
   CSI056
                            0
                                                                              0
##
                            0
                                                                    0
                                                                              0
##
  CSI066
                  0
                                                0
                                                          0
               Otu09160 Otu09161
                                                      Otu09163 Otu09164 Otu09165
##
                                       Otu09162
##
  CSI002 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
   CSI013 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI023 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI034 1.894908e-05
                                 0 0.000000e+00 1.894908e-05
                                                                       0
                                                                                 0
   CSI045 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI056 0.000000e+00
                                 0 1.959286e-05 0.000000e+00
                                                                       0
                                                                                 0
##
   CSI066 0.000000e+00
                                 0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
##
           Otu09166
                         Otu09167 Otu09168 Otu09169 Otu09170 Otu09171 Otu09172
## CSI002
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI013
                  0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
                                          0
                                                    0
   CSI023
                  0 4.082049e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034
                                          0
                                                    0
                                                              0
                                                                                  0
##
                  0 0.00000e+00
                                                                        0
##
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                               0
                                                                                  0
##
  CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                    0.000000e+00
                                          0
                                                    0
                                                               0
                                                                                  0
##
   CSI066
##
           Otu09173 Otu09174 Otu09175 Otu09176 Otu09177 Otu09178 Otu09179
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
  CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                            0
                                                0
                                                                    0
   CSI034
                  0
                                      0
                                                          0
                                                                              0
##
## CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI056
                            0
                                                          0
                                                                    0
                                                                              0
                  0
                                      0
                                                0
##
   CSI066
                  0
                            0
                                      0
                                                          0
                                                                              0
                                             Otu09183 Otu09184 Otu09185
##
           Otu09180 Otu09181
                              Otu09182
## CSI002
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
##
  CSI013
                  0
                            0
                                        3.195807e-05
                                                              0
                                                                        0
                  0
                            0
                                                              0
                                                                        0
##
  CSI023
                                        0.000000e+00
## CSI034
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                      0 0.000000e+00
## CSI045
                  0
                            0
                                                              0
                                                                        0
## CSI056
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
```

```
0 0.000000e+00
## CSI066
                           0
                                                            0
                                                                      0
##
               Otu09186 Otu09187 Otu09188 Otu09189 Otu09190 Otu09191 Otu09192
## CSI002 1.362194e-05
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
  CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                O
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                                                                0
  CSI066 0.000000e+00
                                         0
                                                   0
                                                            0
                                                                                O
                                                Otu09196 Otu09197
##
          Otu09193 Otu09194
                                  Otu09195
                                                                       Otu09198
## CSI002
                  0
                           0 0.000000e+00 2.724387e-05
                                                                 0 0.00000e+00
## CSI013
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 6.391614e-05
## CSI023
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.000000e+00
                           0 0.000000e+00 0.000000e+00
## CSI034
                  0
                                                                 0 0.00000e+00
## CSI045
                  0
                           0 9.795279e-05 0.000000e+00
                                                                 0.0.000000e+00
## CSI056
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.00000e+00
                  0
                           0 0.000000e+00 0.000000e+00
                                                                 0 0.000000e+00
##
  CSI066
          Otu09199 Otu09200 Otu09201 Otu09202 Otu09203 Otu09204
                                                                        Otu09205
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI034
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI045
                  0
                           0
                                               0
                                                        0
                                     0
                                                                  0 0.000000e+00
                           0
                                               0
                                                        0
  CSI056
                  0
                                     0
                                                                  0 3.918572e-05
                                               0
##
  CSI066
                  0
                           0
                                     0
                                                                  0 0.00000e+00
               Otu09206 Otu09207 Otu09208 Otu09209
                                                         Otu09210 Otu09211
## CSI002 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                0
                                0
                                         0
   CSI013 0.000000e+00
                                                   0 0.00000e+00
                                                                           0
   CSI023 0.000000e+00
                                0
                                         0
                                                   0 0.000000e+00
                                                                           0
   CSI034 1.894908e-05
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0 0.00000e+00
                                                                           0
   CSI056 0.000000e+00
                                0
                                         0
                                                    0.000000e+00
                                                                           0
   CSI066 0.000000e+00
                                         0
                                                   0 1.916847e-05
          Otu09212 Otu09213
##
                                  Otu09214 Otu09215 Otu09216
                                                                   Otu09217
## CSI002
                  0
                           0 0.00000e+00
                                                   0
                                                            0 0.00000e+00
                                                            0 0.000000e+00
## CSI013
                  0
                           0 0.000000e+00
                                                   0
## CSI023
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.00000e+00
## CSI034
                  Ω
                           0 0.000000e+00
                                                   0
                                                            0 0.00000e+00
## CSI045
                  0
                           0 0.000000e+00
                                                   0
                                                            0 0.000000e+00
                           0 0.000000e+00
  CSI056
                  0
                                                   Ω
##
                                                            0 0.00000e+00
                                                   0
   CSI066
                  0
                           0 0.00000e+00
                                                            0 0.00000e+00
          Otu09218 Otu09219 Otu09220 Otu09221 Otu09222
                                                               Otu09223
##
##
  CSI002
                  0
                           0
                                     0
                                               0
                                                        0 4.086581e-05
                  0
                           0
                                     0
                                               0
## CSI013
                                                        0 0.000000e+00
                           0
## CSI023
                  0
                                     0
                                               0
                                                        0 0.00000e+00
## CSI034
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
##
  CSI045
                  0
                           0
                                     0
                                               0
                                                        0 0.00000e+00
                  0
                           0
                                     0
                                               0
##
   CSI056
                                                        0 0.00000e+00
   CSI066
                  0
                           0
                                     0
                                               0
                                                        0 0.000000e+00
##
               Otu09224 Otu09225 Otu09226 Otu09227 Otu09228 Otu09229
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
                                0
                                         0
                                                   0
                                                            0
## CSI013 0.000000e+00
                                                                      0
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                            0
                                                                      0
```

```
## CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
  CSI056 1.959286e-05
                                0
                                          0
                                                    0
                                                              0
                                                                        0
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
               Otu09230 Otu09231 Otu09232 Otu09233 Otu09234 Otu09235 Otu09236
##
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
## CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
## CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  O
                                0
                                          0
                                                    Λ
                                                              Λ
                                                                        Λ
                                                                                  Λ
   CSI056 3.918572e-05
   CSI066 0.000000e+00
                                          0
                                                              0
                                                                                  0
##
          Otu09237 Otu09238 Otu09239 Otu09240 Otu09241 Otu09242 Otu09243
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
## CSI013
                            0
                                      0
                                                0
                                                          0
                                                                   0
                  0
                                                                             0
## CSI023
                  0
                            0
                                                          0
                                                                   0
                                                                             0
                                      0
                                                0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0
                                                                             0
                  0
                            0
                                                0
                                                          0
                                                                   0
## CSI045
                                      0
                                                                             0
##
  CSI056
                            0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CST066
                  0
                            0
                                      0
##
          Otu09244
                         Otu09245 Otu09246 Otu09247 Otu09248 Otu09249 Otu09250
## CSI002
                  0 0.000000e+00
                                          Λ
                                                    Ω
                                                              Λ
                                                                        0
                                                                                  O
## CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
## CSI023
                  0 0.000000e+00
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                        0
                                          0
                                                    0
                                                              0
## CSI034
                  0 1.894908e-05
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                                  0
## CSI045
                  0 0.00000e+00
  CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                                  0
##
   CSI066
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                  Otu09253 Otu09254 Otu09255
                                                                    Otu09256
          Otu09251 Otu09252
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0 0.000000e+00
## CSI013
                  0
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
## CSI023
                  0
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
  CSI034
                  0
                            0 3.789817e-05
                                                    0
                                                              0 0.000000e+00
                                                    0
## CSI045
                  0
                            0 0.00000e+00
                                                              0 0.00000e+00
  CSI056
                            0 0.000000e+00
                                                    0
##
                  0
                                                              0 0.00000e+00
                  0
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
##
   CSI066
##
          Otu09257 Otu09258 Otu09259 Otu09260 Otu09261 Otu09262
                                                                          Ot:1109263
## CSI002
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 1.362194e-05
## CSI013
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                   0 0.000000e+00
                  0
                            0
                                      0
                                                0
                                                          0
## CSI034
                                                                   0 3.789817e-05
                  0
                            0
                                      0
                                                0
  CSI045
                                                                   0 0.000000e+00
## CSI056
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
                            0
##
   CSI066
                  0
                                      0
                                                0
                                                         0
                                                                   0 0.00000e+00
          Otu09264 Otu09265 Otu09266
                                            Otu09267 Otu09268 Otu09269
##
## CSI002
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
## CSI013
                  0
                            0
                                      0 3.195807e-05
                                                              0
                                                                        0
## CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                  0
                            0
                                                              0
## CSI034
                                      0 0.00000e+00
                                                                        0
                                      0 0.000000e+00
## CSI045
                  0
                            0
                                                              0
                                                                        0
##
  CSI056
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
##
                  0
##
               Otu09270 Otu09271
                                       Otu09272 Otu09273 Otu09274 Otu09275
## CSI002 1.362194e-05
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
## CSI013 6.391614e-05
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
```

```
## CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0
                                                                  0
                                                                            0
   CSI034 0.000000e+00
                                                                  0
                                0 0.00000e+00
                                                        0
                                                                            0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                         0
                                                                  0
                                                                            0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                                  0
                                                                            0
                                                         0
##
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                        0
                                                                  0
                                                                            0
           Otu09276 Otu09277 Otu09278 Otu09279 Otu09280 Otu09281 Otu09282
##
  CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                            0
                                                0
                                                                    0
##
  CSI034
                  0
                                      0
                                                          0
                                                                             0
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                  0
                            0
                                                0
                                                          0
                                                                    0
                                                                             0
##
   CSI056
                                      0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
                                   Otu09285 Otu09286
##
           Otu09283 Otu09284
                                                           Otu09287 Otu09288
## CSI002
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00
                                                                            0
##
   CSI013
                  0
                              0.000000e+00
                                                    0 0.00000e+00
                                                                            0
                                                                            0
##
   CSI023
                  0
                            0
                              0.000000e+00
                                                    0 2.041025e-05
   CSI034
                  0
                              1.894908e-05
                                                      0.000000e+00
                                                                            0
  CSI045
                  0
                                                                            0
##
                              0.000000e+00
                                                      0.000000e+00
##
   CSI056
                  0
                              0.000000e+00
                                                      0.000000e+00
                                                                            0
##
   CST066
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
                                                                            0
               Otu09289 Otu09290 Otu09291 Otu09292
                                                      Otu09293
##
                                                                     Ot:1109294
                                                    0
##
  CSI002 1.362194e-05
                                0
                                          0
                                                              0 0.00000e+00
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0.000000e+00
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                                0.000000e+00
                                0
                                          0
   CSI056 0.000000e+00
                                                    0
                                                              0 0.00000e+00
                                0
   CSI066 0.000000e+00
                                          0
                                                              0 0.000000e+00
##
##
               Otu09295 Otu09296
                                       Otu09297
                                                     Otu09298
                                                                    Otu09299
##
   CSI002 1.362194e-05
                                0 0.000000e+00 2.724387e-05 0.000000e+00
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI034 1.894908e-05
   CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00 0.000000e+00
##
##
   CSI066 0.000000e+00
                                0 1.916847e-05 0.000000e+00 1.916847e-05
##
           0 \pm 1109300
                         Otu09301 Otu09302 Otu09303 Otu09304 Otu09305 Otu09306
## CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI013
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI023
                                          0
                                                    0
                                                              0
                                                                                  0
                  0 0.000000e+00
                                                                        0
   CSI034
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
   CSI045
                  0 3.265093e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                          0
                                                    0
                                                              0
                                                                        Λ
                                                                                  0
##
   CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
##
   CSI066
                  0 0.000000e+00
                                                                                  0
##
               Otu09307 Otu09308 Otu09309 Otu09310
                                                      Otu09311
                                                                Otu09312
                                                                          Otu09313
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                0
                                                              0
                                                                        0
                                                                                  0
   CSI013 0.000000e+00
                                          0
                                                    0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
           Otu09314 Otu09315
                                   Otu09316 Otu09317 Otu09318 Otu09319 Otu09320
```

```
## CSI002
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CST013
                  0
                            0 0.000000e+00
                                                    0
                                                                                  0
##
                                                              0
                                                                        0
  CSI023
                            0 0.000000e+00
##
                  0
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI034
                  0
                              1.894908e-05
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
                            0
##
   CSI045
                  0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
                  Λ
                                                    0
                                                              0
                                                                        0
                                                                                  O
##
  CSI056
                            0 0.00000e+00
                                                    0
                                                              0
##
   CSI066
                            0 0.000000e+00
                                                                        0
                                                                                  0
                                                      Otu09325
                                                                          Otu09327
##
          Otu09321
                         Otu09322 Otu09323 Otu09324
                                                                Otu09326
## CSI002
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  O
                                                              0
                                                                        0
                                                                                  0
##
   CSI013
                  0 0.000000e+00
                                          0
                                                    0
   CSI023
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                                                  0
   CSI034
                                          0
                                                    0
                                                              0
                                                                        0
##
                  0 0.000000e+00
##
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
   CSI066
                  0 1.916847e-05
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
               Otu09328 Otu09329 Otu09330
                                                 Otu09331 Otu09332 Otu09333
   CSI002 0.000000e+00
                                0
                                                                  0
##
                                          0 0.00000e+00
                                                                            0
   CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0
                                                                  0
                                                                            0
                                          0.000000e+00
   CSI034 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
   CSI045 0.000000e+00
                                0
                                            0.000000e+00
                                                                  0
                                                                            0
   CSI056 1.959286e-05
                                          0 0.000000e+00
                                                                  0
  CSI066 0.000000e+00
                                                                  0
##
                                0
                                          0.000000e+00
                                                                            0
                             Otu09335 Otu09336 Otu09337 Otu09338 Otu09339
##
               Ot:1109334
##
  CSI002 0.000000e+00 1.362194e-05
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI013 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI023 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI034 1.894908e-05 0.000000e+00
                                                                  0
                                               0
                                                        0
                                                                            0
                                                                  0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                            0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                        0
                                                                  0
                                                                            0
##
           Otu09340
                         Otu09341
                                       Otu09342
                                                     Otu09343 Otu09344 Otu09345
##
  CSI002
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
  CSI013
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
##
   CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
                  0 3.789817e-05 0.000000e+00 0.000000e+00
                                                                       0
##
  CSI034
                                                                                 0
##
   CSI045
                  0 0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
##
  CSI056
                    0.000000e+00 0.000000e+00 3.918572e-05
                                                                       0
                                                                                 0
                    0.000000e+00 0.000000e+00 0.000000e+00
                                                                       0
##
   CST066
##
           Otu09346
                    Otu09347 Otu09348
                                            Otu09349 Otu09350 Otu09351 Otu09352
  CSI002
                  0
                            0
                                      0 2.724387e-05
                                                              0
                                                                        0
                                                                                  0
## CSI013
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
  CSI023
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
                            0
                                                              0
                                                                                  0
                  0
                                      0 0.000000e+00
                                                                        Λ
##
   CSI034
                            0
                                                              0
##
  CSI045
                  0
                                      0 0.000000e+00
                                                                                  0
## CSI056
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
   CSI066
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                                  0
##
           Otu09353 Otu09354
                                   Otu09355 Otu09356
                                                           Otu09357
                                                                         Otu09358
## CSI002
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
   CSI013
                  0
                              0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
                  0
                                                      0.000000e+00 0.000000e+00
##
  CSI023
                            0
                              0.000000e+00
## CSI034
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI045
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI056
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 1.959286e-05
```

```
## CSI066
                  0
                            0 1.916847e-05
                                                   0 1.916847e-05 0.000000e+00
##
          Ot:1109359
                        Ot:1109360
                                                    Ot:1109362
                                      Ot:1109361
                                                                  Ot:1109363
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI002
## CSI013
                  0 9.587421e-05 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI023
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                  0 0.000000e+00 0.000000e+00 0.000000e+00 1.894908e-05
##
  CSI034
                  0 0.000000e+00 6.530186e-05 0.000000e+00 0.000000e+00
   CSI045
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
## CSI056
##
   CSI066
                  0 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
               Otu09364 Otu09365
                                      Otu09366 Otu09367
##
                                                              Otu09368
  CSI002 1.362194e-05
                                0 0.00000e+00
                                                       0 0.00000e+00
  CSI013 0.000000e+00
                                0 0.00000e+00
                                                       0 0.000000e+00
   CSI023 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000e+00
   CSI034 3.789817e-05
                                0 0.00000e+00
                                                       0 0.00000e+00
   CSI045 0.000000e+00
                                0 3.265093e-05
                                                       0.0.000000e+00
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                0 5.750542e-05
   CSI066 0.000000e+00
                                                       0 0.00000e+00
##
               Otu09369 Otu09370 Otu09371 Otu09372 Otu09373 Otu09374 Otu09375
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                0
## CSI034 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                0
## CSI045 0.000000e+00
                                                                                Λ
                                0
                                         0
                                                   0
                                                             0
                                                                       0
   CSI056 0.000000e+00
                                0
                                          0
                                                   0
                                                             0
                                                                                0
  CSI066 0.000000e+00
                                0
                                          0
                                                   0
                                                             \cap
                                                                       0
                                                                                0
          Otu09376
                        Otu09377
                                      Otu09378 Otu09379 Otu09380 Otu09381
## CSI002
                  0 0.000000e+00 0.000000e+00
                                                                 0
                                                                           0
                                                       0
                                                                 0
  CSI013
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                           0
## CSI023
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
  CSI034
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI045
                  0 3.265093e-05 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
##
   CSI066
                  0 0.000000e+00 0.000000e+00
                                                       0
                                                                 0
                                                                           0
          Otu09382 Otu09383 Otu09384 Otu09385 Otu09386 Otu09387 Otu09388
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
                                                                  0
  CSI013
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
##
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI034
                  0
                            0
                                               0
                                                         0
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                                     0
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                  0
                            0
                                               0
                                                         0
  CSI045
                                     0
                                                                  0
                                                                            0
                            0
                                               0
                                                         0
                                                                  0
##
  CSI056
                  \cap
                                     0
                                                                            0
   CSI066
                  0
                            0
                                     0
                                               0
                                                                            0
          Otu09389 Otu09390 Otu09391
                                            0tu09392
                                                         Otu09393 Otu09394
##
## CSI002
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                            0
## CSI013
                  0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI023
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI034
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
  CSI045
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                  0
                            0
                                                                           0
##
  CSI056
                                     0 0.000000e+00 0.000000e+00
##
   CST066
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
          Otu09395 Otu09396 Otu09397 Otu09398 Otu09399 Otu09400
                                                                         Otu09401
## CSI002
                                                         0
                                                                  0 0.000000e+00
                  0
                            0
                                     0
                                               0
                            0
## CSI013
                  0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0.000000e+00
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 5.684725e-05
```

```
## CSI045
                  0
                                     0
                                                         0
                                                                   0 0.00000e+00
## CSI056
                            0
                                               0
                                                         0
                                                                   0 0.000000e+00
                  0
                                     0
##
  CSI066
                  0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
               Otu09402
                             Otu09403 Otu09404
                                                     Otu09405 Otu09406 Otu09407
  CSI002 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
  CSI013 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
  CSI034 1.894908e-05 1.894908e-05
                                              0 0.000000e+00
                                                                      0
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                              0 0.000000e+00
                                                                      0
                                                                                0
                                                                      0
   CSI056 0.000000e+00 0.000000e+00
                                              0 0.00000e+00
                                                                                0
   CSI066 0.000000e+00 0.000000e+00
                                              0 1.916847e-05
                                                                      0
                                                                                0
##
          Otu09408
                        Otu09409
                                      Otu09410 Otu09411
                                                              Otu09412 Otu09413
##
   CSI002
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
  CSI013
                  0 0.000000e+00 0.000000e+00
##
                                                        0 0.000000e+00
                                                                                0
  CSI023
                  0 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI034
                  0 0.000000e+00 7.579634e-05
                                                        0 1.894908e-05
                                                                                0
                  0 0.000000e+00 0.000000e+00
##
   CSI045
                                                        0 0.00000e+00
                                                                                0
   CSI056
                  0 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
                  0 0.000000e+00 0.000000e+00
##
   CST066
                                                        0 0.000000e+00
##
           Otu09414 Otu09415 Otu09416 Otu09417 Otu09418 Otu09419 Otu09420
##
  CSI002
                  0
                            0
                                     0
                                               0
                                                         Λ
                                                                   0
                                                                             0
## CSI013
                  0
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                                                                             0
## CSI023
                  0
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##
  CSI034
                  0
                            0
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                                                         0
## CST045
                  0
                                     0
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   CSI056
                  0
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                                     0
                                               0
                                                         0
                                                                             0
   CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                             0
##
                        Otu09422 Otu09423 Otu09424 Otu09425
##
          0tu09421
                                                                    Otu09426
                                          0
                                                   0
                                                             0 0.000000e+00
##
  CSI002
                  0 0.00000e+00
## CSI013
                  0 0.00000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
## CSI023
                  0 0.00000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
##
   CSI034
                  0 0.000000e+00
                                          0
                                                   0
                                                             0 1.894908e-05
   CSI045
                  0 0.000000e+00
                                          0
                                                    0
                                                             0 0.00000e+00
                                          0
                                                    0
##
   CSI056
                  0 0.00000e+00
                                                             0 0.00000e+00
                  0 0.00000e+00
                                          0
                                                   0
                                                             0 0.00000e+00
##
   CSI066
          Otu09427
                        Otu09428 Otu09429 Otu09430 Otu09431 Otu09432 Otu09433
##
## CSI002
                  0 0.00000e+00
                                          0
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## CSI013
                  0 0.000000e+00
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## CSI023
                  0 0.000000e+00
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                  0 0.000000e+00
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## CSI034
                                          0
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   CSI045
                  0 0.00000e+00
                  0 0.00000e+00
                                          0
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                                                                       0
                                                                                 0
##
  CST056
##
   CST066
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
          Otu09434 Otu09435 Otu09436 Otu09437 Otu09438 Otu09439 Otu09440
##
## CSI002
                  0
                            0
                                     0
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## CSI013
                                                         0
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## CSI023
                  0
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## CSI034
                  0
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                                               0
                                                         0
                                                                             0
##
  CSI045
                  0
                            0
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##
   CSI056
                  0
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                                     0
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                                                                   0
                                                                             0
##
                  0
##
          Otu09441 Otu09442 Otu09443 Otu09444 Otu09445 Otu09446 Otu09447
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
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```

```
## CSI023
                   0
                             0
                                       0
                                                                               0
##
  CST034
                   0
                             0
                                                 0
                                                           0
                                                                               0
                                       0
                                                                     0
  CSI045
##
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CST066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
           Otu09448 Otu09449 Otu09450 Otu09451 Otu09452 Otu09453 Otu09454
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI023
                   0
                             0
                                       0
                                                 0
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                                                                               0
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                                                           0
                                                                     0
##
   CSI034
                   0
                                       0
                                                                               0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
                                                           0
                                                                     0
                                                                               0
                   0
                             0
                                       0
                                                 0
##
   CSI056
##
   CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
               Otu09455 Otu09456 Otu09457 Otu09458 Otu09459 Otu09460 Otu09461
##
   CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
   CSI023 0.000000e+00
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
                                 0
   CSI034 0.000000e+00
                                 0
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                                                     0
                                                                0
                                                                          0
                                                                                    0
   CSI045 0.000000e+00
                                 0
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                                                     0
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                                                                                    0
                                                                         0
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
##
   CSI066 1.916847e-05
                                 0
                                           0
                                                     0
                                                                0
                                                                         0
                                                                                    0
##
               Otu09462 Otu09463 Otu09464 Otu09465
                                                       Otu09466
                                                                      Otu09467
## CSI002 2.724387e-05
                                                     0
                                                                0 0.000000e+00
                                 0
                                           0
   CSI013 3.195807e-05
                                           0
                                                     0
                                                                 3.195807e-05
                                 0
                                                                0
   CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0 0.00000e+00
   CSI034 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0 0.000000e+00
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                                 0.000000e+00
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                                0 0.000000e+00
                                 0
                                           0
                                                     0
   CSI066 0.000000e+00
                                                                0 0.000000e+00
##
                         Otu09469 Otu09470 Otu09471 Otu09472
##
           Otu09468
                                                                      Otu09473
## CSI002
                   0 0.00000e+00
                                           0
                                                     0
                                                                0 0.00000e+00
##
   CSI013
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI023
                   0 0.00000e+00
                                           0
                                                     0
                                                                0 0.00000e+00
                                           0
                                                     0
                                                                0 0.000000e+00
##
   CSI034
                   0 0.00000e+00
   CSI045
                   0 0.00000e+00
                                           0
                                                     0
                                                                 3.265093e-05
##
   CSI056
                   0 0.000000e+00
                                           0
                                                     0
                                                               0 0.000000e+00
##
##
   CSI066
                   0 1.916847e-05
                                           0
                                                     0
                                                                0 0.00000e+00
##
           Otu09474 Otu09475
                                   Otu09476 Otu09477
                                                       Otu09478
                                                                  Otu09479 Otu09480
## CSI002
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                    0
                             0 0.000000e+00
  CSI013
                   Λ
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
  CSI023
                   0
                             0 0.000000e+00
                                                     0
                                                                0
                                                                                    0
## CSI034
                   0
                             0 3.789817e-05
                                                     0
                                                                0
                                                                         0
                                                                                    0
                                                     0
##
   CSI045
                   0
                             0 0.000000e+00
                                                                0
                                                                         0
                                                                                    0
                                                     0
                                                                0
                                                                         0
                                                                                    0
##
   CSI056
                   0
                             0 0.00000e+00
                             0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
##
   CSI066
                   0
           Otu09481 Otu09482 Otu09483 Otu09484
                                                       Otu09485 Otu09486
                                                                            Otu09487
##
## CSI002
                   0
                             0
                                       0
                                                 0 2.724387e-05
                                                                         0
                                                                                    0
   CSI013
                                                                                    0
##
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
##
   CSI023
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                         0
                                                                                    0
##
   CSI034
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
                   0
                             0
                                                 0 0.000000e+00
                                                                         0
                                                                                    0
##
   CSI045
                                       0
                             0
## CSI056
                   0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
## CSI066
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                         0
                                                                                    0
##
           Otu09488 Otu09489 Otu09490 Otu09491 Otu09492 Otu09493 Otu09494
```

						_	_	
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu09495	Otu09496	Otu09497		Otu09499	Otu09500	Otu09501
	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##			Otu09503	Otu09504			Otu09507	Otu09508
##	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu09509	Otu09510	Otu09511	Otu09512	Otu09513	Otu09514	Otu09515
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu09516	Otu09517	Otu09518	Otu09519	Otu09520	Otu09521	Otu09522
##	CSI002	0	0	0	0	0	0	0.000000e+00
##	CSI013	0	0	0	0	0	0	0.000000e+00
##	CSI023	0	0	0	0	0	0	0.000000e+00
##	CSI034	0	0	0	0	0	0	1.894908e-05
##	CSI045	0	0	0	0	0	0	0.000000e+00
	CSI056	0	0	0	0	0		0.000000e+00
##	CSI066	0	0	0	0	0		0.000000e+00
##					Otu09526			
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045	0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu09530						9535 Otu09536
	CSI002	0		0.0000006		0	0	0 0
	CSI013	0		0.0000006		0	0	0 0
	CSI023	0		0.000000		0	0	0 0
	CSI034	0		0.0000006		0	0	0 0
	CSI045	0		0.0000006		0	0	0 0
##	CSI056	0	0	5.8778586	e-05	0	0	0 0

##	CSI066	0	0	0.0000	000e	+00		0		0		0		0
##	001000	Otu09537		9538 Ot			Otu09		Otu09	-	Otu09	-	Otu09	-
##	CSI002	0	0.0000006	e+00		0		0		0		0		0
##	CSI013	0	0.0000006	e+00		0		0		0		0		0
##	CSI023	0	0.0000006	e+00		0		0		0		0		0
##	CSI034	0	5.6847256	e-05		0		0		0		0		0
##	CSI045	0	0.0000006	e+00		0		0		0		0		0
##	CSI056	0	0.0000006	e+00		0		0		0		0		0
##	CSI066	0	0.0000006	e+00		0		0		0		0		0
##		Otu09	9544 Otu09	9545 01	tu09	546	C	tu09	9547 (	tu09	9548 (	Otu09	9549	
##	CSI002	0.000000	e+00	0			0.000				0		0	
##		0.0000006		0			0.000				0		0	
##		0.000000		0			0.000				0		0	
##		0.0000006		0			0.000				0		0	
##		0.000000		0			0.000				0		0	
##		1.959286		0			0.000				0		0	
##	CS1066	0.000000		0			0.000			0+(	0	0+(	0	
##	CSI002	0 0 0	Otu09551	0009	05Z	Utuc	0	Utu	0	Utu	0	otuc	0	
	CSI002	0	0		0		0		0		0		0	
	CSI013	0	0		0		0		0		0		0	
	CSI034	0	0		0		0		0		0		0	
	CSI045	0	0		0		0		0		0		0	
	CSI056	0	0		0		0		0		0		0	
	CSI066	0	0		0		0		0		0		0	
##		Otu09557	Otu09558	Otu09!	559	Otu	9560		Otu09	9561	(	Otu09	9562	
##	CSI002	0	0		0		0	0.00	)0000e	+00	0.000	0000	e+00	
##	CSI013	0	0		0		0	0.00	00000	+00	6.39	1614	e-05	
##	CSI023	0	0		0		0	0.00	)0000e	+00	0.000	0000€	e+00	
##	CSI034	0	0		0		0	0.00	)0000e	+00	0.000	)000e	e+00	
##	CSI045	0	0		0		0	0.00	0000€	e+00	0.000	0000€	e+00	
##	CSI056	0	0		0		0	0.00	)0000e	+00	0.000	0000	e+00	
##	CSI066	0	0		0				)0000e					
##			Otu09564	Otu09					Otu09		Otu09		Otu09	
	CSI002	0	0				24387€			0		0		0
##	CSI013	0	0				)0000e			0		0		0
	CSI023	0	0				00000			0		0		0
	CSI034 CSI045	0	0				)0000e )0000e			0		0		0
	CSI043	0	0				)0000e			0		0		0
	CSI066	0	0				)0000¢			0		0		0
##	ODIOOO	-	Otu09571	Ot.1109!					)9574	-	)9575	-	9576	Ū
	CSI002	0	0	o o a o o o	0	oouc	0	oou	0	oou	0	oou	0	
	CSI013	0	0		0		0		0		0		0	
	CSI023	0	0		0		0		0		0		0	
##	CSI034	0	0		0		0		0		0		0	
##	CSI045	0	0		0		0		0		0		0	
##	CSI056	0	0		0		0		0		0		0	
##	CSI066	0	0		0		0		0		0		0	
##		Otu09577	Otu09578	Otu09	579	Otu	9580	Otu	9581	Otu	9582	Otu	9583	
	CSI002	0	0		0		0		0		0		0	
	CSI013	0	0		0		0		0		0		0	
	CSI023	0	0		0		0		0		0		0	
##	CSI034	0	0		0		0		0		0		0	

##	CSI045	0	C	)	0		0		0		0		0	
##	CSI056	0	C	)	0		0		0		0		0	
##	CSI066	0	C	)	0		0		0		0		0	
##		Otu09	9584 Otu0	9585	Otu09	9586	Otu09	9587	Otu09	588	OtuOS	9589	Otu09	590
##	CSI002	0.0000006	e+00	0		0		0		0		0		0
##	CSI013	0.0000006	e+00	0		0		0		0		0		0
##	CSI023	0.0000006	e+00	0		0		0		0		0		0
##	CSI034	0.0000006	e+00	0		0		0		0		0		0
##		0.0000006		0		0		0		0		0		0
##		0.0000006		0		0		0		0		0		0
##	CSI066	1.916847		0		0		0		0		0		0
##		Otu09591							Otu09		Otu09		Otu09	
##	CSI002	0	C				00000€			0		0		0
##	CSI013	0	(		0		00000€			0		0		0
##	CSI023	0	(		0		00000e			0		0		0
##	CSI034	0	(		0		84725¢			0		0		0
##	CSI045	0	(		0		00000e			0		0		0
##	CSI056 CSI066	0	(		0		00000€ 00000€			0		0		0
##	CSTOOO	Otu09598	Otu09599		•				09602	•	10602	•	0604	U
	CSI002	00000000	00000000		0	Utu	0	ocu	0	ocu	0	ocu	0	
	CSI002	0	(		0		0		0		0		0	
	CSI013	0	(		0		0		0		0		0	
	CSI034	0	(		0		0		0		0		0	
	CSI045	0	(		0		0		0		0		0	
##	CSI056	0	(	)	0		0		0		0		0	
##	CSI066	0	C	)	0		0		0		0		0	
##		Otu09605	Otu09606	Otu	09607	Otu	09608	Otu	09609	Otu	9610	Otu(	09611	
##	CSI002	0	C	)	0		0		0		0		0	
##	CSI013	0	C	)	0		0		0		0		0	
##	CSI023	0	C	)	0		0		0		0		0	
##	CSI034	0	C	)	0		0		0		0		0	
##	CSI045	0	C	)	0		0		0		0		0	
##	CSI056	0	C	)	0		0		0		0		0	
##	CSI066	0	C	)	0		0		0		0		0	
##		Otu09612			Otu09	9614	Otu09		Otu09	616	Otu09	9617	Otu09	618
##	CSI002	0				0		0		0		0		0
	CSI013		9.587421			0		0		0		0		0
	CSI023		0.000000			0		0		0		0		0
	CSI034		0.000000			0		0		0		0		0
	CSI045		0.000000			0		0		0		0		0
	CSI056		0.000000			0		0		0		0		0
	CSI066	Otu09619	0.000000		20621	0	വരവ	0	າດຂາວ	0	00604	0	)060E	0
##	CSI002	0.009619	0009620		09621	Utu	09622	Utu	0	Utu	0	Utu	)9625 0	
	CSI002	0			0		0		0		0		0	
	CSI013	0			0		0		0		0		0	
	CSI023	0			0		0		0		0		0	
	CSI045	0	C		0		0		0		0		0	
	CSI056	0	C		0		0		0		0		0	
	CSI066	0	C		0		0		0		0		0	
##	,	Otu09626			-	9628		9629	Otu09	630	·	tu09		
##	CSI002	0			00000			0			0.000			
##	CSI013	0			00000			0			0.000			

```
## CSI023
                            0 0.00000e+00
                                                    0
                                                              0 0.00000e+00
                  0
                              0.000000e+00
                                                    0
##
  CSI034
                                                              0 0.00000e+00
  CSI045
                              0.000000e+00
                                                                0.000000e+00
##
                  0
                                                    0
  CSI056
                  0
                              0.000000e+00
                                                    0
                                                                0.000000e+00
##
                            0
##
   CST066
                  0
                            0
                              1.916847e-05
                                                    0
                                                              0 1.916847e-05
          Otu09632 Otu09633
                              Otu09634 Otu09635 Otu09636 Otu09637 Otu09638
##
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
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                                      0
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##
   CSI023
                  0
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##
  CSI034
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   CSI045
                  0
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##
   CSI056
                                      0
##
   CSI066
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
##
          Otu09639 Otu09640
                                  Otu09641 Otu09642
                                                          Otu09643
                                                                         Otu09644
## CSI002
                            0 0.000000e+00
                                                    0 1.362194e-05 0.000000e+00
                  0
##
   CSI013
                  0
                              0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
   CSI023
                  0
                            0
                              0.000000e+00
                                                      0.000000e+00 2.041025e-05
   CSI034
                  0
                              0.000000e+00
                                                      0.000000e+00 0.000000e+00
                                                      0.000000e+00 0.000000e+00
##
  CSI045
                  0
                            0
                              0.000000e+00
##
   CSI056
                  0
                              0.000000e+00
                                                      0.000000e+00 0.000000e+00
##
   CST066
                  0
                            Ω
                              0.000000e+00
                                                      0.000000e+00 0.000000e+00
          Otu09645
                    Otu09646
                                                      Otu09649 Otu09650 Otu09651
##
                              Ot:1109647
                                            Otu09648
## CSI002
                                                              0
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                                                                                 Λ
                  0
                            0
                                      0 1.362194e-05
                            0
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##
   CSI013
                  0
                                      0 0.00000e+00
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## CSI023
                  0
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                                      0 0.000000e+00
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  CSI034
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                                      Λ
                                       0.000000e+00
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   CSI045
                  0
                            0
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##
                                        0.000000e+00
                            0
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##
   CSI056
                  0
                                        0.000000e+00
                                                                       0
   CSI066
                                                                                 0
                  0
                            0
                                      0 0.000000e+00
                                                              0
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##
##
          Otu09652 Otu09653 Otu09654 Otu09655 Otu09656
                                                                Otu09657 Otu09658
##
  CSI002
                  0
                            0
                                      0
                                               0
                                                         0 2.724387e-05
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##
   CSI013
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##
   CSI023
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                                                         0 0.00000e+00
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##
   CSI034
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                                                         0 0.00000e+00
   CSI045
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                                                         0 0.00000e+00
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##
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##
   CST056
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                                      0
                                                         0 0.00000e+00
##
   CSI066
                  0
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                                                         0 0.00000e+00
                                                                                 0
##
               Otu09659
                             Otu09660 Otu09661 Otu09662
                                                               Otu09663 Otu09664
                                                        0 0.000000e+00
   CSI002 0.000000e+00 4.086581e-05
                                              0
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
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   CSI034 0.000000e+00 0.000000e+00
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                                                        0 0.00000e+00
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   CSI045 0.000000e+00 0.000000e+00
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                                                        0 0.00000e+00
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                                               0
   CSI056 1.959286e-05 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI066 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
                                                                                0
##
                                       Otu09667 Otu09668
                                                               Otu09669 Otu09670
               Otu09665 Otu09666
   CSI002 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI013 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI034 1.894908e-05
                                0 5.684725e-05
                                                        0 0.00000e+00
                                                                                0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                        0 0.00000e+00
                                                                                0
##
   CSI066 0.000000e+00
                                0 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
##
          Otu09671 Otu09672 Otu09673
                                            Otu09674 Otu09675 Otu09676
```

```
## CSI002
                                      0 0.00000e+00
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## CSI013
                            0
                                      0 3.195807e-05
                                                              0
                  0
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                                      0 0.000000e+00
## CSI023
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  CSI034
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                                      0 0.00000e+00
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##
##
  CSI045
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##
  CSI056
                  0
                                      0 0.000000e+00
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##
  CSI066
                  0
                                      0 0.00000e+00
               Otu09677
                                                               Otu09681 Otu09682
##
                             Otu09678 Otu09679 Otu09680
   CSI002 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                 0
                                               0
   CSI013 0.000000e+00 0.000000e+00
                                                        0 0.00000e+00
                                                                                 0
   CSI023 0.000000e+00 0.000000e+00
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                                                        0 0.00000e+00
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   CSI034 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
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   CSI045 0.000000e+00 0.000000e+00
                                              0
                                                        0 9.795279e-05
                                                                                 0
   CSI056 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.000000e+00
                                                                                 0
   CSI066 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.000000e+00
                                                                                 0
##
           Otu09683 Otu09684
                                   Otu09685
                                                 Otu09686 Otu09687 Otu09688
## CSI002
                            0 0.000000e+00 1.362194e-05
                  0
                                                                  0
                                                                            0
##
  CSI013
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
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## CSI034
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                            0
##
  CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
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## CSI056
                            0 1.959286e-05 0.000000e+00
                                                                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
## CST066
                  \cap
                                                                            0
          Otu09689 Otu09690
                              Otu09691
                                            Otu09692 Otu09693 Otu09694 Otu09695
##
## CSI002
                  0
                            0
                                      0 0.00000e+00
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                                                                                  0
## CSI013
                  0
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                                      0 0.000000e+00
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## CSI023
                  0
                            0
                                      0 0.00000e+00
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##
  CSI034
                  0
                                      0 3.789817e-05
                                                                        0
## CSI045
                  0
                            0
                                      0 0.000000e+00
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                                                                        0
                                                                                  0
## CSI056
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
  CSI066
                  0
                            0
                                      0 0.00000e+00
                                                              0
                                                                        0
                                                                                  0
##
          Otu09696 Otu09697 Otu09698 Otu09699 Otu09700 Otu09701 Otu09702
## CSI002
                  0
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  CSI013
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##
                  0
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   CSI023
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  CSI034
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##
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##
  CSI045
                  0
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## CSI056
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  CSI066
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##
                  0
               Otu09703
##
                             Otu09704 Otu09705 Otu09706 Otu09707 Otu09708
  CSI002 2.724387e-05 0.000000e+00
                                              0
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  CSI013 0.000000e+00 0.000000e+00
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   CSI023 0.000000e+00 0.000000e+00
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   CSI034 0.000000e+00 0.000000e+00
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   CSI045 0.000000e+00 0.000000e+00
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   CSI056 0.000000e+00 0.000000e+00
                                               0
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##
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
##
               Otu09709 Otu09710 Otu09711 Otu09712 Otu09713 Otu09714
  CSI002 0.000000e+00
                                0
                                          0
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                                                              0
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  CSI013 0.000000e+00
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  CSI023 0.000000e+00
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## CSI034 3.789817e-05
                                0
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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```

```
## CSI066 0.000000e+00
                                0
                                         0
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                                                             0
##
               Otu09715 Otu09716 Otu09717 Otu09718 Otu09719 Otu09720 Otu09721
## CSI002 0.000000e+00
                                0
                                          0
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                                                             0
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 3.789817e-05
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
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          Otu09722 Otu09723
                                  Otu09724
                                                Otu09725 Otu09726 Otu09727
##
## CSI002
                  0
                           0 0.000000e+00 0.000000e+00
## CSI013
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                                                                           0
## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
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                                                                           0
                  0
                            0 1.894908e-05 0.000000e+00
                                                                  0
## CSI034
## CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
## CSI056
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
                  0
                            0 0.000000e+00 0.000000e+00
                                                                  0
## CSI066
          Otu09728 Otu09729 Otu09730 Otu09731 Otu09732 Otu09733 Otu09734
## CST002
                  0
                           0
                                     0
                                               0
                                                         0
                                                                   0
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## CSI013
                  0
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## CSI023
                  Λ
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## CSI034
## CSI045
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                  Λ
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## CSI056
                            0
## CSI066
                  0
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               Otu09735
                             Otu09736 Otu09737 Otu09738 Otu09739 Otu09740
## CSI002 0.000000e+00 0.000000e+00
                                              0
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## CSI013 0.000000e+00 0.000000e+00
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                                              0
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## CSI023 0.000000e+00 0.000000e+00
                                              0
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                                                                           0
## CSI034 5.684725e-05 5.684725e-05
                                              0
                                                        0
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                                                                           0
## CSI045 0.000000e+00 0.000000e+00
                                              0
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   CSI056 0.000000e+00 0.000000e+00
                                              0
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                                                                  0
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0
                                                                  0
##
          Otu09741 Otu09742 Otu09743 Otu09744 Otu09745 Otu09746 Otu09747
## CSI002
                  0
                           0
                                     0
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                                                                   0
## CSI013
                  0
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                                     0
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## CSI023
                  0
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## CSI034
                  Ω
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## CSI045
                  0
                            0
## CSI056
                  Ω
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## CSI066
                  0
##
          Otu09748 Otu09749 Otu09750 Otu09751 Otu09752 Otu09753 Otu09754
## CSI002
                  0
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## CSI013
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## CSI023
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## CSI034
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                                               0
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## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
                            0
## CSI056
                  0
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
##
          Otu09755 Otu09756 Otu09757
                                            Otu09758 Otu09759 Otu09760 Otu09761
## CSI002
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                            0
                                                             0
## CSI013
                  0
                                     0 9.587421e-05
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI034
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
```

```
## CSI045
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                         0
## CSI056
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI066
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
##
               Otu09762 Otu09763 Otu09764 Otu09765 Otu09766 Otu09767 Otu09768
## CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
## CSI034 1.894908e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
  CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
                                 0
                                           Λ
                                                     Λ
                                                               0
                                                                                   0
## CSI056 0.000000e+00
   CSI066 0.000000e+00
                                                               0
                                                                                   0
##
           Otu09769 Otu09770 Otu09771 Otu09772
                                                       Otu09773
                                                                     Otu09774
                                                0 0.000000e+00 0.000000e+00
## CSI002
                  0
                            0
                                      0
## CSI013
                            0
                                      0
                  0
                                                0 0.000000e+00 0.000000e+00
## CSI023
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
                                      0
## CSI034
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                  0
                            0
                                      0
                                                0 0.000000e+00 3.265093e-05
## CSI045
## CSI056
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
   CST066
           Otu09775 Otu09776 Otu09777 Otu09778
                                                       Otu09779 Otu09780 Otu09781
## CSI002
                  Λ
                            0
                                      Ω
                                                0 0.000000e+00
                                                                         0
                                                                                   0
## CSI013
                            0
                                      0
                                                0 3.195807e-05
                                                                         0
                                                                                   0
## CSI023
                                                                                   0
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
## CSI034
                  0
                            0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
                                      0
                            0
                                      0
                                                                         0
                                                                                   0
## CSI045
                  0
                                                0 0.00000e+00
## CSI056
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                                   0
## CSI066
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
           Otu09782 Otu09783 Otu09784 Otu09785 Otu09786 Otu09787 Otu09788
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI045
                  0
                            0
                                      0
                                                                              0
## CSI056
                  0
                            0
                                                0
                                      0
                                                          0
                                                                    0
                                                                              0
##
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
##
          Otu09789 Otu09790 Otu09791 Otu09792 Otu09793 Otu09794 Otu09795
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
## CSI013
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
## CSI034
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI045
                  0
                            0
                                                                              0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                                                0
   CSI066
                  0
                            0
                                      0
                                                          0
                                                                    0
                                                                              0
           Otu09796 Otu09797 Otu09798 Otu09799 Otu09800 Otu09801 Otu09802
##
                                                          0
## CSI002
                  0
                            0
                                      0
                                                0
                                                                    0
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                                          0
## CSI034
                                      0
                                                0
                                                                              0
## CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                      0
                                                0
                                                                              0
##
                                                          0
                                                                    0
##
           Otu09803 Otu09804 Otu09805 Otu09806 Otu09807
                                                                 Otu09808 Otu09809
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                   0
```

##	CSI023	0	0	0	0	C	0.000000	e+00 0
	CSI034	0	0	0	0		3.789817	
##	CSI045	0	0	0	0	C	0.000000	e+00 0
##	CSI056	0	0	0	0	C	0.000000	e+00 0
##	CSI066	0	0	0	0	C	0.000000	e+00 0
##		Otu09810	Otu09811	Otu09	9812 Otu09	9813 Otu0	9814 Otu0	9815 Otu09816
##	CSI002	0	0	0.0000006	e+00	0	0	0 0
##	CSI013	0	0	0.000000	e+00	0	0	0 0
##	CSI023	0		0.000000		0	0	0 0
##	CSI034	0	0	0.000000	e+00	0	0	0 0
##	CSI045	0	0	0.000000		0	0	0 0
##	CSI056	0	0	0.000000		0	0	0 0
##	CSI066	0		0.000000		0	0	0 0
##	~~~~			Otu09819				9822 Otu09823
##	CSI002	0	0	0	_	0.000000		0 0
##	CSI013	0	0	0	0	0.000000		0 0
##	CSI023	0	0	0	0	0.000000		0 0
##	CSI034	0	0	0	0	0.000000		0 0
	CSI045	0	0	0	0	0.000000		0 0
	CSI056 CSI066	0	0	0	0	0.000000		0 0
##	CSTOOO	•	•	-	ū		e+00 3 Otu09829	•
	CSI002	00009024	0.009025	000000000	00000027	0009020		
	CSI002	0	0	0	0			
	CSI023	0	0	0	0			-
	CSI034	0	0	0	0	(		-
	CSI045	0	0	0	0	C		-
##	CSI056	0	0	0	0	C	) 0	0
##	CSI066	0	0	0	0	C	) 0	0
##		Otu09831	Otu09832	Otu09833	Otu09834	Otu09835	Otu09836	Otu09837
##	CSI002	0	0	0	0	C	0	0
##	CSI013	0	0	0	0	C	0	0
##	CSI023	0	0	0	0	C	0	0
##	CSI034	0	0	0	0	C	0	0
##	CSI045	0	0	0	0	C	0	0
##	CSI056	0	0	0	0	C	0	0
##	CSI066	0	0	0	0	C	0	0
##		Otu09838	Otu09839	Otu09840	Otu09841	Otu09842	2 Otu09843	Otu09844
	CSI002	0	0	0	0	C		
	CSI013	0	0	0	0	C		
	CSI023	0	0	0	0	C		
	CSI034	0	0	0	0	C		
	CSI045	0	0	0	0	C		
	CSI056	0	0	0	0	C		
##	CSI066	0	0	0	0	0.00046		-
##	aa tooo						Otu09850	
##	CSI002	0	0	0	0	C		0.000000e+00
	CSI013	0	0	0	0	C		0.000000e+00
	CSI023	0	0	0	0	C		0.000000e+00
	CSI034	0	0	0	0	C		0.000000e+00
	CSI045 CSI056	0	0	0	0	(		3.265093e-05 0.000000e+00
##	CS1056	0	0	0	0			0.000000e+00
##	ODIOOO	-	•	-	-	-		Otu09858
##		00000002	0000000	06403004	0000000	00000000	00000001	0.000000

	aa tooo	_	•	•	^		•	•		•
##	CSI002	0	0	0	0		0	0		0
##	CSI013	0	0	0	0		0	0		0
##	CSI023	0	0	0	0		0	0		0
##	CSI034	0	0	0	0		0	0		0
##	CSI045	0	0	0	0		0	0		0
##	CSI056	0	0	0	0		0	0		0
##	CSI066	0	0	0	0		0	0		0
##		Otu09859	Otu09860	Otu09861	Otu09862	Otu09		Otu09864		Otu09865
##	CSI002	0	0	0	0		0	0		00000e+00
##	CSI013	0	0	0	0		0	0		00000e+00
##	CSI023	0	0	0	0		0	0		00000e+00
##	CSI034	0	0	0	0		0	0		00000e+00
##	CSI045	0	0	0	0		0	0	6.53	30186e-05
##	CSI056	0	0	0	0		0	0	0.00	0000e+00
##	CSI066	0	0	0	0		0	0	0.00	0000e+00
##		Otu09866	Otu09867	Otu09868	Otu09869	Otu09	370	Otu09871		Otu09872
##	CSI002	0	0	0	0		0	0	1.36	S2194e-05
##	CSI013	0	0	0	0		0	0	0.00	0000e+00
##	CSI023	0	0	0	0		0	0	0.00	0000e+00
##	CSI034	0	0	0	0		0	0	0.00	0000e+00
##	CSI045	0	0	0	0		0	0	0.00	0000e+00
##	CSI056	0	0	0	0		0	0	0.00	0000e+00
##	CSI066	0	0	0	0		0	0	0.00	0000e+00
##		Otu09873	Otu09874	Otu09875	Otu09876	Otu09	377	Otu09878		Otu09879
##	CSI002	0	0	0	0		0	0	0.00	0000e+00
##	CSI013	0	0	0	0		0	0	0.00	0000e+00
##	CSI023	0	0	0	0		0	0	0.00	0000e+00
##	CSI034	0	0	0	0		0	0	5.68	84725e-05
##	CSI045	0	0	0	0		0	0	0.00	0000e+00
##	CSI056	0	0	0	0		0	0	0.00	0000e+00
##	CSI066	0	0	0	0		0	0	0.00	0000e+00
##		Otu09880	Otu09	9881 Otu0	9882 Otu09	9883 O	tu09	884 Otu09	9885	Otu09886
##	CSI002	0	0.0000006	e+00	0	0		0	0	0
##	CSI013	0	0.0000006	e+00	0	0		0	0	0
##	CSI023	0	0.000000		0	0		0	0	0
##	CSI034	0	0.0000006	e+00	0	0		0	0	0
##	CSI045	0	6.530186	e-05	0	0		0	0	0
	CSI056	0	0.0000006		0	0		0	0	0
	CSI066		0.0000006		0	0		0	0	0
##			Otu09888		9889 Otu09	9890 D	tu09	891 Otu09	9892	Otu09893
##	CSI002	0		2.724387		0		0	0	0
	CSI013	0		0.000000		0		0	0	0
	CSI023	0		0.000000		0		0	0	0
	CSI034	0		0.000000		0		0	0	0
	CSI045	0		0.000000		0		0	0	0
	CSI056	0		0.000000		0		0	0	0
	CSI066	0		0.000000		0		0	0	0
##	001000		Otu09895			-	+11 <b>∩</b> 0		-	Otu09900
	CSI002	00000094	0.009090	0 0 0 0 0 0		0.000			0	0
	CSI002	0	0	0		0.000			0	0
	CS1013	0	0	0		0.000			0	0
	CS1023	0	0	0		0.000			0	0
		0							0	0
	CSI045 CSI056		0	0		0.000				
##	COTOO	0	0	0	0	1.959	2006	-05	0	0

```
## CSI066
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
##
          Oti109901 Oti109902 Oti109903
                                           Ot:1109904
                                                         Ot1109905 Ot1109906
## CSI002
                  0
                           0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
## CSI013
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
  CSI023
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
  CSI034
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
  CSI045
## CSI056
                  0
                            0
                                     0 0.000000e+00 0.000000e+00
                                                                           0
##
   CSI066
                  0
                            0
                                     0 0.000000e+00 1.916847e-05
                                                                           0
          Otu09907
                    Otu09908
                                  Otu09909 Otu09910
##
                                                         Otu09911 Otu09912
  CSI002
                  0
                            0 0.00000e+00
                                                   0 1.362194e-05
                                                                           0
## CSI013
                  0
                            0 0.00000e+00
                                                                           0
                                                   0 3.195807e-05
  CSI023
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
                                                   0 0.00000e+00
                                                                           0
##
  CSI034
                  0
                            0 0.00000e+00
  CSI045
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
##
##
  CSI056
                  0
                              0.000000e+00
                                                   0 0.00000e+00
                                                                           0
                  0
                            0 0.000000e+00
                                                   0 0.000000e+00
##
   CSI066
                                                                           0
##
          Otu09913 Otu09914
                              Otu09915
                                           Otu09916
                                                         Otu09917
                                                                        Otu09918
## CSI002
                                     0 1.362194e-05 0.000000e+00 0.000000e+00
                  0
                            0
## CSI013
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
  CSI023
                  0
                            0
                                     0 0.000000e+00 2.041025e-05 0.000000e+00
  CSI034
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
  CSI045
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
                  0
                            0
##
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
   CSI056
                  0
                            0
                                     0 0.000000e+00 0.000000e+00 0.000000e+00
##
   CSI066
                  \cap
               Otu09919 Otu09920
                                      Otu09921 Otu09922
                                                              Otu09923 Otu09924
##
   CSI002 0.000000e+00
                                0 1.362194e-05
                                                       0 0.00000e+00
                                                                               0
   CSI013 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
                                                                               0
   CSI023 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000e+00
                                                                               0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                       0 0.000000e+00
                                                                               0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0 0.000000e+00
                                                                               0
   CSI056 0.000000e+00
                                0 0.000000e+00
                                                       0 0.000000e+00
   CSI066 0.000000e+00
                                0 0.00000e+00
                                                       0 0.00000e+00
          Otu09925 Otu09926
                                  Otu09927 Otu09928 Otu09929
##
                                                                   Otu09930
##
   CSI002
                  0
                            0 0.00000e+00
                                                   0
                                                             0 1.362194e-05
  CSI013
                  0
                            0 0.000000e+00
                                                   0
                                                             0 0.000000e+00
##
  CSI023
                  0
                            0 0.000000e+00
                                                   0
                                                             0 0.00000e+00
##
  CSI034
                  0
                            0 1.894908e-05
                                                   0
                                                             0 0.000000e+00
                  0
                              0.000000e+00
                                                   0
                                                               0.000000e+00
   CSI045
                             0.000000e+00
                  Λ
                                                   0
                                                             0 0.000000e+00
##
  CSI056
   CSI066
                             0.000000e+00
                                                               0.000000e+00
          Otu09931 Otu09932 Otu09933
                                           Otu09934 Otu09935
                                                               Otu09936 Otu09937
##
##
   CSI002
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
                  0
                            0
                                                             0
                                                                      0
                                                                                0
##
  CSI013
                                     0 3.195807e-05
                            0
                                                             0
                                                                                0
  CSI023
                  0
                                     0 0.000000e+00
                                                                      0
  CSI034
                  0
                            0
                                                             0
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                                                                                0
##
                                     0 1.894908e-05
##
   CSI045
                  0
                            0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
                  0
                            0
                                                             0
                                                                      0
                                                                                0
##
   CSI056
                                     0 0.00000e+00
##
   CSI066
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
##
          Otu09938
                        Otu09939 Otu09940 Otu09941
                                                     Otu09942
                                                               Otu09943
                                                                        Otu09944
  CSI002
                                         0
                                                   0
                                                             0
                                                                                0
##
                  0 4.086581e-05
                                                                      0
                                         0
                                                   0
                                                             0
## CSI013
                  0 0.00000e+00
                                                                      0
                                                                                0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034
                  0 0.00000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
```

```
## CSI045
                  0 0.00000e+00
                                          0
                                                    0
                                                              0
## CST056
                  0 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI066
                  0 0.00000e+00
                                          0
                                                     0
                                                                                  0
##
           Otu09945 Otu09946 Otu09947 Otu09948 Otu09949
                                                                 Otu09950 Otu09951
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
## CSI013
                  0
                            0
                                      0
                                                0
                                                                                  0
                                                          0 0.00000e+00
## CSI023
                            0
                                                          0 0.00000e+00
                  0
                                      0
                                                0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
## CSI045
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                            0
                                      0
                                                Λ
                                                                                  0
## CSI056
                  0
                                                          0 0.00000e+00
   CSI066
                  0
                            0
                                      0
                                                          0 0.00000e+00
                                                                                  0
                         Otu09953 Otu09954
##
           Otu09952
                                                 Otu09955 Otu09956 Otu09957
## CSI002
                  0 0.000000e+00
                                          0 1.362194e-05
                                                                   0
                                                                             0
## CSI013
                  0 0.000000e+00
                                                                   0
                                          0 0.00000e+00
                                                                             0
## CSI023
                  0 0.000000e+00
                                          0 0.000000e+00
                                                                   0
                                                                             0
## CSI034
                  0 1.894908e-05
                                          0 0.00000e+00
                                                                   0
                                                                             0
                  0 0.000000e+00
                                                                   0
##
  CSI045
                                          0 0.00000e+00
                                                                             0
## CSI056
                  0 0.000000e+00
                                           0 0.00000e+00
                                                                   0
##
   CST066
                  0 0.00000e+00
                                          0 0.000000e+00
                                                                             0
           Otu09958 Otu09959 Otu09960 Otu09961 Otu09962 Otu09963 Otu09964
## CSI002
                  Λ
                            0
                                      Ω
                                                0
                                                          Λ
                                                                    Λ
                                                                              0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                      0
                                                0
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                                                                    0
                                                                              0
## CSI034
                  0
                            0
                                      0
                                                0
                                                                              0
## CSI045
                  0
                            0
                                      0
                                                0
                                                                              0
  CSI056
                  0
                            0
                                      0
                                                0
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##
  CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
           Otu09965 Otu09966 Otu09967 Otu09968 Otu09969 Otu09970
                                                                      Otu09971
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
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                                      0
                                                0
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                                                                    0
                                                                              0
## CSI023
                  0
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                                                          0
                                                                    0
                                                                              0
##
  CST034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
## CSI045
                  0
                            0
                                      0
                                                                              0
## CSI056
                            0
                  0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
##
##
           Otu09972 Otu09973 Otu09974 Otu09975 Otu09976 Otu09977 Otu09978
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
## CSI013
                  Ω
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI023
                  0
                            0
                                                          0
                  Ω
                            0
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                                                          0
## CSI034
                                      0
                                                                    0
                                                                              0
                            0
   CSI045
                                                                              0
## CSI056
                            0
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                                                0
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                                                                    0
                                                                              0
                  0
##
   CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    \cap
                                                                              0
##
               Otu09979 Otu09980 Otu09981 Otu09982 Otu09983 Otu09984 Otu09985
  CSI002 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
## CSI013 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
                                 0
                                          0
                                                     0
   CSI023 0.000000e+00
                                 0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                 0
                                          0
## CSI034 5.684725e-05
                                                     0
                                                              0
                                                                                  0
  CSI045 0.000000e+00
                                 0
                                          0
                                                     0
                                                              0
                                                                        0
                                                                                  0
## CSI056 0.000000e+00
                                 0
                                          0
                                                     0
                                                               0
                                                                        0
                                                                                  0
   CSI066 0.000000e+00
                                 0
                                                               0
##
                                                    0
                                                                        0
                                                                                  0
##
           Otu09986 Otu09987 Otu09988
                                             Otu09989 Otu09990
                                                                     Otu09991
## CSI002
                  0
                            0
                                      0 0.000000000
                                                              0 0.000000e+00
## CSI013
                  0
                            0
                                      0 0.000000000
                                                              0 0.000000e+00
```

```
## CSI023
                   0
                             0
                                       0 0.000000000
                                                               0 0.00000e+00
  CSI034
                   0
                             0
                                       0.000000000
                                                               0 3.789817e-05
##
                                                                0 0.000000e+00
  CSI045
                   0
                             0
                                       0 0.000000000
  CSI056
                   0
                             0
                                         0.000000000
                                                                  0.000000e+00
##
                                                                0
##
   CST066
                   0
                             0
                                       0
                                         0.000000000
                                                               0
                                                                  0.000000e+00
           Otu09992 Otu09993 Otu09994 Otu09995
                                                        Otu09996 Otu09997 Otu09998
##
## CSI002
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
## CSI013
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                    0
##
  CSI023
                   0
                             0
                                       0
                                                 0 0.00000e+00
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##
  CSI034
                   0
                             0
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                                                 0 0.000000e+00
                                                                          Λ
   CSI045
                   0
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                                       0
                                                 0 0.00000e+00
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   CSI056
                   0
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                                       0
                                                 0 0.00000e+00
                                                                          0
##
##
   CSI066
                   0
                             0
                                       0
                                                 0 3.833694e-05
                                                                          0
                                                                                    0
                     Otu10000
##
           Otu09999
                               Otu10001 Otu10002 Otu10003 Otu10004 Otu10005
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI013
                   0
                             0
                                       0
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   CSI023
                   0
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##
                                       0
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   CSI034
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   CSI045
                   0
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##
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##
   CSI056
                   0
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                                                                     0
                                                                               0
##
   CST066
                   Λ
                             0
                                       0
                                                 0
                                                                     0
                                                                               0
##
           Otu10006
                         Otu10007 Otu10008 Otu10009
                                                            Otu10010 Otu10011
## CSI002
                                                     0 0.000000e+00
                                           0
                   0.000000e+00
                                                                              0
   CSI013
                   0 0.000000e+00
                                           0
                                                     0 0.00000e+00
##
                                                                              0
                                           0
                                                                              0
## CSI023
                   0 0.00000e+00
                                                     0 0.00000e+00
   CSI034
                   0 3.789817e-05
                                           0
                                                     0
                                                       0.000000e+00
                                                                              0
   CSI045
                   0 0.00000e+00
                                           0
                                                     0
                                                        0.000000e+00
                                                                              0
##
                   0 0.000000e+00
                                           0
                                                        0.000000e+00
                                                                              0
   CSI056
   CSI066
                   0 0.000000e+00
                                                     0 0.000000e+00
                                                                              0
##
##
           Otu10012 Otu10013 Otu10014
                                              Otu10015
                                                       Otu10016 Otu10017 Otu10018
## CSI002
                   0
                             0
                                       0 1.362194e-05
                                                               0
                                                                          0
                                                                                    0
##
   CSI013
                   0
                             0
                                       0 0.000000e+00
                                                               0
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                                                                                    0
   CSI023
                   0
                             0
                                       0 0.000000e+00
                                                                0
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                                                                                    0
                   0
                             0
                                                                0
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##
   CSI034
                                       0 0.000000e+00
                                                                          0
   CSI045
                   0
                             0
                                         0.000000e+00
                                                                0
                                                                          0
                                                                                    0
##
   CSI056
                   0
                             0
                                       0 3.918572e-05
                                                               0
                                                                          0
                                                                                    0
##
##
   CSI066
                   0
                             0
                                       0 0.00000e+00
                                                                0
                                                                          0
                                                                                    0
##
           Otu10019
                    Otu10020
                               Otu10021 Otu10022 Otu10023 Otu10024 Otu10025
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
  CSI013
                             0
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##
                   0
  CSI023
                             0
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                   0
                                       0
## CSI034
                   0
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##
   CSI045
                   0
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##
   CSI056
                   0
                                       Λ
                   0
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                                                 0
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                                                                     0
                                                                               0
##
   CSI066
                                       0
           Otu10026 Otu10027
                                   Otu10028 Otu10029 Otu10030 Otu10031 Otu10032
##
## CSI002
                   0
                             0 0.00000e+00
                                                     0
                                                               0
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                                                                                    0
   CSI013
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##
                   0
                             0 0.00000e+00
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   CSI023
                   0
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                               0.000000e+00
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                                                                                    0
##
   CSI034
                   0
                               0.000000e+00
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                                                                                    0
                   0
                               0.000000e+00
                                                     0
                                                                0
                                                                          0
                                                                                    0
##
   CSI045
                             0
## CSI056
                   0
                             0 0.00000e+00
                                                     0
                                                                0
                                                                          0
                                                                                    0
## CSI066
                   0
                             0 0.000000e+00
                                                     0
                                                                0
                                                                          0
                                                                                    0
##
           Otu10033 Otu10034 Otu10035 Otu10036 Otu10037 Otu10038 Otu10039
```

	aa tooo	•		•	•	^	•	•
	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu10040	Otu10041	Otu10042	2 Otu10043	Otu10044	Otu10045	Otu10046
##	CSI002	0	0	0.000000e+00	0	0	0	0
##	CSI013	0	0	0.000000e+00	0	0	0	0
##	CSI023	0	0	0.000000e+00	0	0	0	0
##	CSI034	0	0	5.684725e-05	5 0	0	0	0
##	CSI045	0	0	0.000000e+00	) 0	0	0	0
##	CSI056	0	0	0.000000e+00	0	0	0	0
##	CSI066	0		0.000000e+00		0	0	0
##	001000	•		Otu10049 Otu		•	·	•
##	CSI002	0	0.00100	0	0	0	0	0
##	CSI002	0	0	0	0	0	0	0
	CS1013	0	0	0	0	0		0
			-		-	-	0	-
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu10054	Otu10055		0tu10057			Otu10060
##	CSI002	0	0	2.724387e-05	0	0	0	0
##	CSI013	0	0	0.000000e+00	0	0	0	0
##	CSI023	0	0	0.000000e+00	0	0	0	0
##	CSI034	0	0	0.000000e+00	0	0	0	0
##	CSI045	0	0	0.000000e+00	0	0	0	0
##	CSI056	0	0	0.000000e+00	0	0	0	0
##	CSI066	0	0	0.000000e+00	0	0	0	0
##		Otu10061	Otu10062	Otu10063	0tu10064	Otu10065	Otu10066	Otu10067
##	CSI002	0	0	0.000000e+00	0	0	0	0
##	CSI013	0	0	0.000000e+00	0	0	0	0
##	CSI023	0	0	2.041025e-05	5 0	0	0	0
##	CSI034	0	0	0.000000e+00	0	0	0	0
##	CSI045	0	0	0.000000e+00		0	0	0
	CSI056	0	•	0.000000e+00		0	0	0
	CSI066	0		0.000000e+00		0	0	0
##	001000			Otu10070 Otu		-	-	-
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
		0	0	0	0	0	0	0
	CSI045	-		-				
	CSI056	0	0	0	0	0	0	0
	CSI066	0	0	0	0	0	0	0
##			Otu10076			Otu10079		
	CSI002	0	0		000000e+00	0	0	0
	CSI013	0	0		.95807e-05	0	0	0
	CSI023	0	0		000000e+00	0	0	0
	CSI034	0	0		894908e-05	0	0	0
	CSI045	0	0		00000e+00	0	0	0
##	CSI056	0	0	0 0.0	00000e+00	0	0	0

```
0 0.000000e+00
## CSI066
                           0
                                                             0
                                                                                0
##
              Otu10082 Otu10083 Otu10084 Otu10085 Otu10086 Otu10087
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
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                                                                       0
## CSI023 0.000000e+00
                                0
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                                                   0
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                                                                       0
## CSI034 0.000000e+00
                                0
                                         0
                                                   Ω
                                                             Λ
                                                                       0
## CSI045 0.000000e+00
                                0
                                         0
## CSI056 0.000000e+00
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                                                   0
                                                             0
                                                                       0
## CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             Λ
                                                                       0
##
               Otu10088 Otu10089 Otu10090 Otu10091 Otu10092 Otu10093
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
  CSI023 0.000000e+00
                                0
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                                                   0
                                                             0
                                                                       0
## CSI034 0.000000e+00
                                0
                                         0
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                                                                       0
  CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
## CSI056 0.000000e+00
                                0
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                                                   0
                                                             0
                                                                       0
  CSI066 1.916847e-05
                                0
                                         0
                                                   0
                                                             0
                                                                       0
##
              Otu10094
                             Otu10095 Otu10096 Otu10097 Otu10098 Otu10099
## CSI002 0.000000e+00 1.362194e-05
                                              0
                                                       0
                                                                 0
                                                                           0
## CSI013 0.000000e+00 0.000000e+00
                                              0
                                                       0
                                                                 0
                                                                           0
## CSI023 0.000000e+00 0.000000e+00
                                              0
                                                       Λ
                                                                 0
                                                                           0
## CSI034 1.894908e-05 3.789817e-05
                                              0
                                                       0
                                                                 0
## CSI045 0.000000e+00 0.000000e+00
                                              Λ
                                                                 0
                                                       0
                                                                           0
## CSI056 0.000000e+00 0.000000e+00
                                              0
                                                                 0
                                              0
                                                                 0
## CSI066 0.000000e+00 0.000000e+00
                                                       Ω
                                                                           0
          Otu10100 Otu10101 Otu10102
                                           Otu10103 Otu10104 Otu10105 Otu10106
## CSI002
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
                  0
## CSI013
                                                                       0
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                  0
                           0
                                     0 3.195807e-05
                                                             0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                0
## CSI034
                  0
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                                     0 0.00000e+00
                                                             0
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## CSI045
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
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## CSI056
                  0
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                                     0 0.00000e+00
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   CSI066
                  0
                                     0 0.00000e+00
                                                             0
                                                                       0
                                                                                0
          Otu10107 Otu10108
                                  Otu10109 Otu10110 Otu10111 Otu10112 Otu10113
##
## CSI002
                  0
                           0 0.00000e+00
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## CSI013
                  0
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## CSI023
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## CSI034
                  Ω
                           0 3.789817e-05
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## CSI045
                  0
                            0 0.000000e+00
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## CSI056
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                            0 0.000000e+00
                                                   Ω
                                                             Λ
                                                             0
  CSI066
                            0 0.00000e+00
##
          Otu10114 Otu10115 Otu10116
                                          Otu10117 Otu10118 Otu10119 Otu10120
                                     0 1.362194e-05
## CSI002
                  0
                           0
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## CSI013
                  0
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## CSI023
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## CSI034
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## CSI045
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                                     0 0.00000e+00
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## CSI056
                                     0 0.000000e+00
   CSI066
                  0
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                                     0 0.000000e+00
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                                                                       0
                                                                                0
##
          Otu10121 Otu10122
                                  Otu10123 Otu10124 Otu10125 Otu10126 Otu10127
## CSI002
                           0 0.000000e+00
                                                   0
                                                             0
                                                                       0
                  0
                                                                                0
                                                   0
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## CSI013
                  0
                           0 0.00000e+00
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## CSI023
                  0
                           0 0.000000e+00
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## CSI034
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                           0 0.000000e+00
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```

```
## CSI045
                  0
                            0 0.00000e+00
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## CSI056
                  0
                            0 0.000000e+00
                                                     0
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##
  CSI066
                  0
                            0 0.00000e+00
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                                                                         0
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##
           Otu10128 Otu10129 Otu10130 Otu10131
                                                       Otu10132 Otu10133
## CSI002
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                         0
## CSI013
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                                                0 3.195807e-05
## CSI023
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                                                0 0.00000e+00
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                                                0 0.000000e+00
## CSI034
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   CSI045
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   CSI056
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   CSI066
                  0
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                                                0 0.00000e+00
##
               Otu10134 Otu10135 Otu10136 Otu10137 Otu10138 Otu10139
   CSI002 0.000000e+00
                                 0
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   CSI013 3.195807e-05
                                 0
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   CSI023 0.000000e+00
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   CSI034 0.000000e+00
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   CSI045 0.000000e+00
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   CSI056 0.000000e+00
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   CSI066 0.000000e+00
                                 0
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                                                     0
                                                               0
##
                                                                         0
               Otu10140 Otu10141 Otu10142 Otu10143 Otu10144
                                                                 Otu10145
                                                                           0tu10146
  CSI002 0.000000e+00
##
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 1.894908e-05
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## CSI045 0.000000e+00
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                                                                         0
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   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
           Otu10147 Otu10148 Otu10149 Otu10150 Otu10151 Otu10152
                                                                           Otu10153
## CSI002
                  0
                            0
                                      0
                                                          0
                                                                    0 0.000000e+00
                                                0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 3.195807e-05
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.000000e+00
   CSI045
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
   CSI056
                            0
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                                                          0
##
                  0
                                      0
                                                                    0 0.00000e+00
   CSI066
                            0
                                      0
                                                0
                                                          0
                                                                    0 0.00000e+00
##
##
               Otu10154 Otu10155 Otu10156 Otu10157 Otu10158 Otu10159 Otu10160
  CSI002 0.000000e+00
                                 0
                                           0
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                                                                         0
                                                                                   0
  CSI013 0.000000e+00
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                                                                                   0
   CSI023 0.000000e+00
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  CSI034 1.894908e-05
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                                                                         0
   CSI045 0.000000e+00
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                                                                                   0
   CSI056 0.000000e+00
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                                                               0
                                                                         0
                                                                                   0
                                 0
                                           0
   CSI066 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
               Otu10161 Otu10162 Otu10163 Otu10164 Otu10165
##
                                                                 Otu10166
                                                                           Otu10167
   CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
  CSI013 0.000000e+00
                                           0
                                                     0
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                                 0
   CSI023 2.041025e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
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                                           0
                                                                                   0
   CSI034 0.000000e+00
                                                     0
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                                                                         0
   CSI045 0.000000e+00
                                 0
                                           0
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                                                                         0
                                                                                   0
   CSI056 0.000000e+00
                                 0
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                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI066 0.000000e+00
                                 0
                                                     0
                                                               0
                                                                                   0
##
                                                                         0
##
           Otu10168 Otu10169 Otu10170
                                             Otu10171 Otu10172
                                                                     0tu10173
                                      0 0.000000e+00
## CSI002
                  0
                            0
                                                               0.0.000000e+00
## CSI013
                  0
                            0
                                      0 0.00000e+00
                                                               0 0.000000e+00
```

```
## CSI023
                                      0 0.00000e+00
                                                              0 0.00000e+00
## CST034
                  0
                            0
                                      0 3.789817e-05
                                                              0.000000e+00
                                      0 0.000000e+00
                                                              0 0.00000e+00
## CSI045
                  0
                            0
                                      0 0.000000e+00
  CSI056
                  0
                            0
                                                              0 1.959286e-05
##
##
   CST066
                  0
                            0
                                      0 0.000000e+00
                                                              0 0.000000e+00
           Otu10174 Otu10175
                                   Otu10176 Otu10177 Otu10178 Otu10179
##
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                              0
## CSI013
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
## CSI023
                  0
                            0
                              0.000000e+00
                                                    0
                                                              0
                                                                        0
                  0
                                                    0
                                                              0
## CSI034
                            0 0.000000e+00
                                                                        Λ
   CSI045
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                    0
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                                                                        0
##
   CSI056
                  0
                            0 0.00000e+00
##
   CSI066
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                     Otu10183 Otu10184 Otu10185
##
               Otu10180 Otu10181
                                       Otu10182
   CSI002 1.362194e-05
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI023 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI034 1.894908e-05
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
   CSI045 0.000000e+00
                                0 6.530186e-05 0.000000e+00
                                                                       0
                                                                                 0
   CSI056 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                 0
                                0 0.000000e+00 0.000000e+00
##
   CSI066 0.000000e+00
                                                                       0
                                                                                 0
##
           Otu10186
                         Otu10187 Otu10188 Otu10189 Otu10190 Otu10191 Otu10192
## CSI002
                                                    0
                                                              0
                  0.000000e+00
                                          0
                                                                        0
                                                                                  0
## CSI013
                  0 0.000000e+00
                                          0
                                                              0
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                                                                                  0
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                                                                                  0
## CSI023
                  0 0.00000e+00
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                                                                        0
  CSI034
                  0 1.894908e-05
                                          0
                                                    0
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  CSI045
                  0 0.00000e+00
                                          0
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##
                  0 0.000000e+00
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   CSI056
                                                              0
   CSI066
                  0 0.000000e+00
                                          0
                                                    0
                                                                        0
##
##
           Otu10193 Otu10194 Otu10195 Otu10196 Otu10197 Otu10198 Otu10199
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CSI013
                  0
                            0
                                      0
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   CSI023
                  0
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                  0
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##
  CSI034
                                      0
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                                                                              0
  CSI045
                  0
                            0
                                      0
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##
  CSI056
                  0
                            0
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                                                                    0
                                                                              0
##
                                      0
##
   CSI066
                  0
                            0
                                      0
                                                          0
                                                                    0
                                                                              0
##
           Otu10200 Otu10201
                                   Otu10202
                                                 Otu10203 Otu10204 Otu10205
## CSI002
                  0
                            0
                              1.362194e-05 0.000000e+00
                                                                   0
                            0 3.195807e-05 0.000000e+00
## CSI013
                  0
                                                                   0
                                                                             0
## CSI023
                              0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
## CSI034
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
                                                                             0
                                                                   0
  CSI045
                  0
                            0 0.000000e+00 0.000000e+00
                                                                             0
                                                                   Λ
                                                                             Λ
##
  CSI056
                  \cap
                            0 0.000000e+00 0.000000e+00
                            0 0.000000e+00 0.000000e+00
                                                                   0
##
   CSI066
           Otu10206 Otu10207
                              Otu10208 Otu10209 Otu10210 Otu10211
                                                                      0tu10212
##
## CSI002
                  0
                            0
                                      0
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                                                                    0
                                                                              0
  CSI013
                                                                    0
##
                  0
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  CSI023
                  0
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##
  CSI034
                  0
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                                                                              0
                  0
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##
  CSI045
                                                                    0
## CSI056
                  0
                            0
                                      0
                                                0
                                                          0
                                                                              0
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu10213 Otu10214 Otu10215 Otu10216 Otu10217 Otu10218 Otu10219
```

		_	_										
	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##		Otu10220	Otu10221	Otu10222	Otu1	.0223	Otu1	10224	Otu	10225	Otu1	.0226	
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##		Otu10227	Otu10228	Otu10229	Otu1	.0230	Otu1	0231	Otu1	10232	Otu1	0233	
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##	001000	Otu10234	-	•	0236	Otu10	)237	Otu10	)238	Otu10	)239	Otu102	240
##	CSI002	0		0.000000		ouare	0	Outi	0	Outi	0	Oution	0
##	CSI013	0	0				0		0		0		0
##	CSI023	0	0				0		0		0		0
##	CSI034	0	0				0		0		0		0
##	CSI045	0	0	0.000000			0		0		0		0
##	CSI056	0	0	0.000000			0		0		0		0
##	CSI066	0	0				0		0		0		0
##	001000	-	Otu10242			Ω±1110	-	Otu10	-	Otu10	-	Otu102	-
##	CSI002	0	0	1.362194		ouare	0	Outi	0	Outi	0	Oution	0
##	CSI013	0	0	0.000000			0		0		0		0
##	CSI023	0	0	0.000000			0		0		0		0
##	CSI034	0	0	0.000000			0		0		0		0
##	CSI045	0	0	0.000000			0		0		0		0
	CSI056	0		0.000000			0		0		0		0
	CSI066	0		0.000000			0		0		0		0
##	ODIOOO		Otu10249			0251		0252		0253	Ū	Otu102	-
	CSI002	0	0	0	oual	0	o o u .	0	o o u .		0.00	00000e-	
	CSI013	0	0	0		0		0				0000e-	
	CSI023	0	0	0		0		0				0000c	
	CSI034	0	0	0		0		0				0000c	
	CSI045	0	0	0		0		0				0000c	
	CSI056	0	0	0		0		0				59286e-	
	CSI066	0	0	0		0		0				0000e	
##	221000	-	0 0255 Otu10	_	0257		1252		1250				
	CCTOO	0.000000		0256 Utul	0257	Juli	0	Juli	0	o cuit	0200	Julio	201
		0.0000000		0	0		0		0		0		
		0.0000000		0	0		0		0		0		0
		1.894908		0	0		0		0		0		0
		0.000000		0	0		0		0		0		0
		0.0000000		0	0		0		0		0		0
##	COTOO	0.000000	<del>-</del> 1.00	U	U		U		U		U		U

```
## CSI066 0.000000e+00 0 0
                                                     0 0
##
         Otu10262 Otu10263 Otu10264 Otu10265 Otu10266 Otu10267 Otu10268
## CSI002
                  0
                                0 0
                                                  0 0.000000e+00
## CSI013
                0
                        0
                                 0
                                         0
                                                  0 0.000000e+00
                                                                       Λ
## CSI023
                0
                        0
                                 0
                                         0
                                                  0 0.000000e+00
                                                                       0
## CSI034
                0
                        0
                                 0
                                         0
                                                  0 5.684725e-05
                                                                       Λ
## CSI045
                0
                        0
                                 0
                                                  0 0.000000e+00
                                 0
                                         0
## CSI056
                0
                        0
                                                 0 0.000000e+00
                                                                       0
## CSI066
                0
                        0
                                0
                                         0
                                                  0 0.000000e+00
                                      Otu10272
         Otu10269 Otu10270 Otu10271
                                                 Otu10273 Otu10274
##
## CSI002
               0 0.000000e+00 0.000000e+00
## CSI013
                0
                        0
                                0 0.000000e+00 0.000000e+00
                                                                  0
## CSI023
                0
                        0
                                0 0.000000e+00 0.000000e+00
                                                                  0
## CSI034
                0
                       0
                                0 0.000000e+00 0.000000e+00
## CSI045
               0
                       0
                               0 0.000000e+00 0.000000e+00
## CSI056
               0
                        0
                               0 0.000000e+00 3.918572e-05
               0
## CSI066
                       0
                                0 0.000000e+00 0.000000e+00
                                                                  0
##
             Otu10275 Otu10276 Otu10277 Otu10278 Otu10279 Otu10280 Otu10281
## CSI002 0.000000e+00 0
                                    0
                                             0
                                                     0
                                                              0
                                                                       0
## CSI013 0.000000e+00
                            0
                                    0
                                             0
                                                      0
                                                              0
                                                                       0
## CSI023 0.000000e+00
                            0
                                    0
                                             0
                                                     0
                                                              0
                                                                       0
## CSI034 1.894908e-05
                            0
                                    0
                                                      0
## CSI045 0.000000e+00
                            0
                                    0
                                             0
                                                     0
                                                              0
## CSI056 0.000000e+00
                            0
                                    0
                                             0
                                                     0
## CSI066 0.000000e+00
                                    0
                                             0
                                                     Ω
                            0
                                                              Ω
         Otu10282 Otu10283 Otu10284 Otu10285 Otu10286 Otu10287 Otu10288
## CSI002
               Ω
                  0
                                0
                                         0
                                                  0
                                                                   0
                                                          0
## CSI013
                        0
                                                  0
                0
                                 0
                                         0
                                                          0
                                                                   0
## CSI023
                0
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                                 0
                                         0
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                                                          0
                                                                   0
## CSI034
                0
                        0
                                0
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                                                                   0
## CSI045
                0
                        0
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                                                          0
## CSI056
                0
                        0
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                                         0
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                                0
                                         0
                                                  0
                                                          0
                0
   Otu10289
                    Otu10290 Otu10291 Otu10292 Otu10293 Otu10294 Otu10295
##
## CSI002
          0 0.000000e+00 0 0
                                                     0
                                                              0
## CSI013
               0 0.000000e+00
                                    0
                                             0
                                                     0
                                                              0
                                                                       0
## CSI023
                0 0.000000e+00
                                    0
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                                                      0
                                                                       0
## CSI034
                0 5.684725e-05
                                    Λ
                                             0
                                                     Λ
                                                              0
                                                                       0
## CSI045
                0 0.000000e+00
                                    0
                                             0
                                                      0
## CSI056
                0 0.000000e+00
                                    Λ
                                             Λ
                                                      Λ
                0 0.000000e+00
                                    0
                                             0
                                                      0
         Otu10296 Otu10297 Otu10298 Otu10299 Otu10300 Otu10301 Otu10302
                  0 0.000000e+00
                                       0
## CSI002
               0
                                                     0
                                                              Ω
                                                                       0
## CSI013
                0
                                             0
                                                     0
                                                              0
                                                                       0
                        0 0.000000e+00
## CSI023
                0
                                                     0
                        0 0.000000e+00
                                             0
                                             0
## CSI034
                0
                        0 3.789817e-05
                                                     0
                                                              0
                                                                       0
## CSI045
                0
                        0 0.000000e+00
                                             0
                                                     0
                                                              0
                                                                       0
                0
                                             0
                                                     0
## CSI056
                        0 0.000000e+00
               0
                        0 0.000000e+00
                                            0
                                                     0
                                                              0
         Otu10303 Otu10304 Otu10305 Otu10306 Otu10307 Otu10308 Otu10309
## CSI002
               0
                        0
                                0
                                         0
                                                  0
                                                          0
                                                                   0
                0
                        0
                                 0
                                         0
                                                  0
                                                          0
## CSI013
                                                                   0
## CSI023
                0
                        0
                                0
                                         0
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                                                          0
                                                                   0
                        0
## CSI034
               0
                                0
                                         0
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```

```
## CSI045
                           0
                                                                            0
## CSI056
                                               0
                                                        0
                  0
                           0
                                     0
                                                                            0
  CSI066
##
                  0
                           0
                                     0
                                               0
                                                                            0
                                                         Otu10314 Otu10315
##
          Otu10310
                        Otu10311 Otu10312 Otu10313
## CST002
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
## CSI013
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
                                                                           0
                                         0
## CSI023
                  0 2.041025e-05
                                                   0 0.000000e+00
## CSI034
                  0 0.000000e+00
                                         0
                                                   0 3.789817e-05
                                                                           0
##
   CSI045
                  0 0.000000e+00
                                         Λ
                                                   0 0.000000e+00
                                         0
                                                                           Λ
   CSI056
                  0 0.000000e+00
                                                   0 0.00000e+00
   CSI066
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
##
          Otu10316
                        Otu10317 Otu10318 Otu10319 Otu10320 Otu10321 Otu10322
##
  CSI002
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI013
                  0 0.00000e+00
                                                             0
                                         0
                                                   0
                                                                      0
                                                                                0
## CSI023
                  0 0.000000e+00
                                                                                0
                                         0
                                                   0
                                                             0
                                                                      0
  CSI034
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                         0
                                                   0
                                                             0
##
  CSI045
                  0 0.000000e+00
                                                                      0
                                                                                0
   CSI056
                  0 3.918572e-05
                                                   0
                                                             0
                                         0
                                                             0
##
   CST066
                  0 0.00000e+00
                                                   0
                                                                                0
          Otu10323 Otu10324 Otu10325 Otu10326 Otu10327 Otu10328
                                                                        0tu10329
## CSI002
                  Ω
                           Λ
                                     Ω
                                               Λ
                                                        Λ
                                                                  0 0.000000000
## CSI013
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.0000000000
## CSI023
                  0
                           0
                                     0
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                                                        0
                                                                  0 0.000000000
                           0
                                                        0
## CSI034
                  0
                                     0
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                                                                  0 0.000000000
                                     0
                                               0
                                                        0
## CST045
                  0
                           0
                                                                  0.0000000000
  CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.0000000000
   CSI066
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000000
##
                                           Otu10333 Otu10334 Otu10335 Otu10336
##
          Otu10330 Otu10331 Otu10332
## CSI002
                  0
                           0
                                                            0
                                     0 0.00000e+00
                                                                      0
## CSI013
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
##
  CST034
                  0
                           0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
##
   CSI045
                  0
                           0
                                     0 0.00000e+00
                                                             0
                                                                                0
  CSI056
                                     0 0.000000e+00
                                                             0
##
                  0
                           0
                                                                      0
                                                                                0
                  0
                           0
                                     0 0.00000e+00
                                                             0
                                                                      0
                                                                                0
          Otu10337 Otu10338 Otu10339
                                           Otu10340 Otu10341 Otu10342 Otu10343
##
## CSI002
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                      0
## CSI013
                  0
                           0
                                     0 0.00000e+00
                                                             Λ
                                                                      0
                                                                                0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
                  Λ
                           0
                                                             Λ
                                                                      0
                                                                                0
## CSI034
                                     0 0.00000e+00
                  0
                           0
                                                             0
   CSI045
                                     0 0.00000e+00
                           0
                                     0 0.000000e+00
                                                             0
                                                                      0
                                                                                0
##
  CSI056
                  0
                                                            0
##
   CSI066
                  0
                           0
                                     0 0.000000e+00
                                                                      Ω
               Otu10344 Otu10345
                                      Otu10346 Otu10347 Otu10348 Otu10349
##
  CSI002 2.724387e-05
                                0 0.00000e+00
                                                       0
                                                                 0
  CSI013 0.000000e+00
                                0 0.000000e+00
                                                                 0
                                                                           0
                                                       0
   CSI023 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
                                                                 0
                                                                           0
   CSI034 0.000000e+00
                                0 0.00000e+00
                                                       0
   CSI045 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
   CSI056 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
                                0 0.000000e+00
                                                       0
                                                                 0
##
   CSI066 0.000000e+00
                                                                           0
##
          Otu10350 Otu10351 Otu10352 Otu10353 Otu10354 Otu10355
                                                                        Otu10356
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0.000000e+00
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
```

##	CSI023	0	0	0	C		0		n n n	00000e+00
##	CSI023	0	0	0	C		0			84725e-05
##	CSI045	0	0	0	C		0			00000e+00
##	CSI056	0	0	0	C		0			00000e+00
##	CSI066	0	0	0	C		0			00000e+00
##	0.000	Otu10357	Otu10358	Otu10359	_		-	Otu1036		
##	CSI002	0	0	0	0		0		0	0
##	CSI013	0	0	0	C		0		0	0
##	CSI023	0	0	0	C		0		0	0
##	CSI034	0	0	0	C		0		0	0
##	CSI045	0	0	0	C		0		0	0
##	CSI056	0	0	0	C		0	(	0	0
##	CSI066	0	0	0	C		0		0	0
##		Otu10364	Otu10365	Otu10366	Otu10367	Otu	10368	Otu1036	9 Otu	10370
##	CSI002	0	0	0	C		0		0	0
##	CSI013	0	0	0	C		0		0	0
##	CSI023	0	0	0	C		0	(	0	0
##	CSI034	0	0	0	C		0		0	0
##	CSI045	0	0	0	C		0		0	0
##	CSI056	0	0	0	C		0	(	0	0
##	CSI066	0	0	0	C		0	(	0	0
##		Otu10371	Otu10372	Otu10373			10375	Otu1037		Otu10377
	CSI002	0	0	0	C		0			00000e+00
##	CSI013	0	0	0	C		0			00000e+00
##	CSI023	0	0	0	C		0			00000e+00
##	CSI034	0	0	0	0		0			00000e+00
##	CSI045	0	0	0	0		0			00000e+00
##	CSI056	0	0	0	0		0			00000e+00
##	CSI066	0	0	0	0+10201		10200			00000e+00
##	CSI002	Otu10378	Otu10379	Otu10380	00010381		10382	Otu1038	3 Utu 0	10384 0
##	CS1002	0	0	0	C		0		0	0
##	CSI013	0	0	0	C		0		0	0
##	CSI034	0	0	0	C		0		0	0
##	CSI045	0	0	0	C		0		0	0
##	CSI056	0	0	0	C		0		0	0
	CSI066	0	0	0	C		0		0	0
##		Otu10385	Otu10386	Otu10387	Otu10388	Otu	10389	Otu1039	0 Otu	10391
##	CSI002	0	0	0	C		0		0	0
##	CSI013	0	0	0	C		0		0	0
##	CSI023	0	0	0	C		0	(	0	0
##	CSI034	0	0	0	C		0		0	0
##	CSI045	0	0	0	C		0		0	0
##	CSI056	0	0	0	C		0		0	0
##	CSI066	0	0	0	C		0		0	0
##		Otu10392	Otu10393	Otu10	0394 Otu1	0395	Otu10	)396 Otu	10397	Otu10398
##	CSI002	0		0.0000006		0		0	0	0
##	CSI013	0		0.0000006		0		0	0	0
##	CSI023	0		0.0000006		0		0	0	0
	CSI034	0		0.0000006		0		0	0	0
	CSI045	0		0.000000		0		0	0	0
	CSI056	0		0.0000006		0		0	0	0
	CSI066	0		0.0000006		0		0	0	0
##		Utu10399	Utu10400	Otu10401	Utu10402		Otu10	)403 Otu	10404	Otu10405

```
## CSI002
                  0
                            0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
  CST013
                                                0 0.00000e+00
                                                                                  0
##
                  0
                            0
                                      0
                                                                        0
  CSI023
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
  CSI034
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
##
   CSI045
                  0
                            0
                                      0
                                                0 0.000000e+00
                                                                        0
                                                                                  0
                            0
                                                                        0
                                                                                  O
  CSI056
                  0
                                      0
                                                0 0.00000e+00
##
                            0
##
   CSI066
                                      0
                                                0 0.00000e+00
                                                                        0
                                                                                  0
##
               Otu10406 Otu10407 Otu10408 Otu10409 Otu10410 Otu10411 Otu10412
##
   CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                                              0
                                                                                  0
   CSI013 0.000000e+00
                                0
                                          0
                                                    0
                                                                        0
   CSI023 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI034 0.000000e+00
   CSI045 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
   CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
##
           Otu10413 Otu10414 Otu10415 Otu10416 Otu10417 Otu10418 Otu10419
## CSI002
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
                  0
   CSI013
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
  CSI023
                            0
                                                         0
                                                                   0
                                                                             0
##
                  0
                                      0
                                                0
##
   CSI034
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
##
   CSI045
                  0
                            0
                                      0
                                                0
                                                         0
                                                                   0
                                                                             0
   CSI056
                            0
                                                         0
                                                                   0
                                                                             0
##
                            0
                                                         0
                                                                   0
##
  CSI066
                  0
                                      0
                                                0
                                                                             0
##
               Otu10420 Otu10421 Otu10422
                                                 Otu10423 Otu10424 Otu10425
##
  CSI002 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI013 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI023 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
                                                                  0
   CSI034 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                            0
                                                                  0
   CSI045 0.000000e+00
                                0
                                                                            0
                                            0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00
                                0
                                          0
                                            1.916847e-05
                                                                  0
                                                                            0
##
               Otu10426 Otu10427 Otu10428
                                                 Otu10429 Otu10430 Otu10431
##
   CSI002 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI013 0.000000e+00
                                0
                                                                  0
                                                                            0
                                          0 0.00000e+00
   CSI023 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
   CSI034 0.000000e+00
                                0
                                                                  0
##
                                          0 0.00000e+00
                                                                            0
   CSI045 0.000000e+00
                                0
                                          0 3.265093e-05
                                                                  0
                                                                            0
  CSI056 0.000000e+00
                                0
                                          0 0.00000e+00
                                                                  0
                                                                            0
##
   CSI066 0.000000e+00
                                          0 0.00000e+00
                                                                  0
##
                                                                            0
                             Otu10433 Otu10434 Otu10435
##
               0tu10432
                                                               Otu10436 Otu10437
  CSI002 1.362194e-05 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
   CSI013 0.000000e+00 0.000000e+00
                                              0
                                                        0 3.195807e-05
                                                                                0
   CSI023 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
                                              0
   CSI034 0.000000e+00 0.000000e+00
                                                        0 0.000000e+00
                                                                                0
   CSI045 0.000000e+00 0.000000e+00
                                               0
                                                        0 0.00000e+00
                                                                                0
   CSI056 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.000000e+00
                                                                                0
##
   CSI066 0.000000e+00 0.000000e+00
                                              0
                                                        0 0.00000e+00
                                                                                0
##
               Otu10438 Otu10439
                                       Otu10440
                                                     Otu10441 Otu10442 Otu10443
  CSI002 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                0
   CSI013 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                0
                                0 0.000000e+00 0.000000e+00
                                                                       0
##
   CSI023 0.000000e+00
                                                                                0
## CSI034 0.000000e+00
                                0 0.000000e+00 1.894908e-05
                                                                       0
                                                                                0
## CSI045 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                       0
                                                                                0
## CSI056 1.959286e-05
                                0 1.959286e-05 0.000000e+00
                                                                       0
                                                                                0
```

```
## CSI066 0.000000e+00
                                0 0.000000e+00 0.000000e+00
                                                                               0
##
               Otu10444 Otu10445 Otu10446 Otu10447 Otu10448
                                                                   Ot.1110449
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
## CSI013 0.000000e+00
                                0
                                          0
                                                   0
                                                             0 0.000000e+00
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI034 5.684725e-05
                                0
                                         0
                                                   0
                                                             0 5.684725e-05
## CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
## CSI066 0.000000e+00
                                0
                                         0
                                                             0 0.000000e+00
##
          Otu10450 Otu10451 Otu10452 Otu10453
                                                     Otu10454 Otu10455 Otu10456
## CSI002
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
## CSI013
                            0
                                     0
                                                                       0
                                                                                 0
                  0
                                               0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
                                                                                0
## CSI034
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI045
                  0
                            0
                                     0
                                                                       0
                                                                                0
                                               0 3.265093e-05
## CSI056
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
                  0
                            0
                                     0
                                               0 0.000000e+00
##
  CSI066
                                                                                 0
          Otu10457 Otu10458 Otu10459 Otu10460 Otu10461 Otu10462
                                                                         Otu10463
                                                                  0 2.724387e-05
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
## CSI034
                            0
                                               0
                                                         0
                                                                  0 0.000000e+00
## CSI045
                            0
                                               0
                                                         0
                  0
                                     0
                                                                  0 0.000000e+00
                            0
                                     0
                                               0
## CSI056
                  0
                                                                  0 0.00000e+00
## CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0 0.00000e+00
               Otu10464 Otu10465 Otu10466
                                                Otu10467 Otu10468 Otu10469
## CSI002 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
                                                                           0
                                0
                                                                 0
  CSI013 0.000000e+00
                                         0 0.00000e+00
                                                                           0
                                                                 0
## CSI023 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                           0
  CSI034 0.000000e+00
                                0
                                         0 1.894908e-05
                                                                 0
                                                                           0
   CSI045 0.000000e+00
                                0
                                         0 0.000000e+00
                                                                 0
                                                                           0
   CSI056 1.959286e-05
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
   CSI066 0.000000e+00
                                0
                                         0 0.00000e+00
                                                                 0
                                                                           0
          Otu10470 Otu10471 Otu10472 Otu10473
##
                                                     Otu10474 Otu10475 Otu10476
## CSI002
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                                                                                0
## CSI013
                  0
                            0
                                     0
                                                                       0
                                                                                0
                                               0 0.000000e+00
## CSI023
                  0
                            0
                                               0 0.00000e+00
                                                                       0
                                                                                 0
## CSI034
                  Ω
                            0
                                               0 0.00000e+00
                                                                       0
                                                                                Λ
                                     0
## CSI045
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
                                                                                 0
                  0
                            0
                                     0
                                                                       0
## CSI056
                                               0.000000e+00
                            0
   CSI066
                                               0 0.00000e+00
##
               Otu10477 Otu10478 Otu10479 Otu10480 Otu10481 Otu10482 Otu10483
  CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                                             0
                                                                       0
                                                                                 0
  CSI013 0.000000e+00
                                0
                                         0
                                                   0
  CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                 0
                                                                       0
   CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                0
                                          0
                                                   0
                                                             0
   CSI056 1.959286e-05
                                                                                 0
   CST066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
                                                                                 0
          Otu10484 Otu10485 Otu10486 Otu10487 Otu10488
                                                               Otu10489 Otu10490
## CSI002
                  0
                            0
                                     0
                                                         0 0.000000e+00
                                               0
                                                                                0
                            0
                                               0
## CSI013
                  0
                                     0
                                                         0 0.00000e+00
                                                                                 0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                0
```

```
## CSI045
                  0
                           0
                                     0
                                               0
                                                         0 0.00000e+00
## CSI056
                  0
                           0
                                               0
                                                         0 0.000000e+00
                                                                                0
                                     0
## CSI066
                  0
                            0
                                     0
                                               0
                                                         0 1.916847e-05
##
          Otu10491 Otu10492 Otu10493 Otu10494 Otu10495 Otu10496 Otu10497
## CSI002
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI013
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0
                                                                            0
## CSI023
                            0
                                     0
                                                         0
                  0
                                               0
                                                                            0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         Λ
                                                                            0
                  0
                            0
                                     0
                                               0
## CSI056
## CSI066
                  0
                            0
                                     0
                                               0
          Otu10498 Otu10499 Otu10500 Otu10501 Otu10502 Otu10503
##
                                                                         Otu10504
## CSI002
                  0
                           0
                                     0
                                               0
                                                         0
                                                                  0 0.000000e+00
## CSI013
                            0
                                     0
                                               0
                                                         0
                  0
                                                                  0 0.00000e+00
## CSI023
                  0
                            0
                                                         0
                                                                  0 0.000000e+00
                                     0
                                               0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
                  0
                            0
                                     0
                                               0
                                                         0
## CSI045
                                                                  0 6.530186e-05
## CSI056
                            0
                                     0
                                                                   0 0.00000e+00
                            0
                                     0
                                               0
                                                         0
##
  CST066
                  0
                                                                  0 0.00000e+00
          Otu10505 Otu10506 Otu10507 Otu10508 Otu10509 Otu10510 Otu10511
## CSI002
                  Λ
                           Λ
                                     Ω
                                               Λ
                                                         Λ
                                                                  Ω
                                                                            0
## CSI013
                            0
                                     0
                                                                            0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI034
                  0
                            0
                                     0
                                                                            0
                            0
                                     0
                                               0
                                                                   0
## CSI045
                  0
## CSI056
                  0
                            0
                                     0
## CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                  0
                        Otu10513 Otu10514
                                               Otu10515 Otu10516 Otu10517
          Otu10512
## CSI002
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
## CSI013
                  0 0.00000e+00
                                         0 0.000000e+00
                                                                 0
                                                                           0
## CSI023
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
                                                                           0
## CSI034
                  0 0.000000e+00
                                         0 3.789817e-05
                                                                 0
                                                                           0
                                                                  0
## CSI045
                  0 0.000000e+00
                                         0 0.00000e+00
                  0 0.000000e+00
                                                                 0
## CSI056
                                         0 0.000000e+00
                                                                           0
                  0 0.00000e+00
                                         0 0.00000e+00
                                                                 0
##
          Otu10518 Otu10519 Otu10520
                                           Otu10521 Otu10522 Otu10523 Otu10524
## CSI002
                  0
                           0
                                     0 0.00000e+00
                                                             0
                                                                       0
## CSI013
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
## CSI023
                  0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                           0
## CSI034
                  Λ
                                                             Λ
                                                                       0
                                                                                 0
                                     0 0.00000e+00
                  0
                            0
                                                             0
## CSI045
                                     0 0.00000e+00
## CSI056
                  0
                            0
                                     0 0.000000e+00
                                                             0
                                                                       0
                                                                                 0
                           0
                                     0 0.000000e+00
                                                             0
                                                                       0
  CSI066
                  0
          Otu10525 Otu10526 Otu10527 Otu10528 Otu10529 Otu10530 Otu10531
##
                                                         0
## CSI002
                  0
                           0
                                     0
                                               0
                                                                   0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                                         0
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                                               0
## CSI023
                  0
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                                     0
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                                                                   0
                                                                            0
                  0
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                                               0
## CSI034
                                     0
                                                                            0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                            0
                                     0
                                               0
                                                         0
##
                  0
               Otu10532 Otu10533 Otu10534 Otu10535 Otu10536 Otu10537
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
## CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                       0
```

```
## CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
   CSI034 1.894908e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                               0
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                                         0
##
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
##
               Otu10538 Otu10539 Otu10540 Otu10541 Otu10542 Otu10543
   CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
## CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
   CSI023 0.000000e+00
                                 0
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                                           0
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                                                               0
   CSI034 1.894908e-05
                                                                         0
   CSI045 0.000000e+00
                                 0
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                                                     0
                                                               0
                                                                         0
   CSI056 0.000000e+00
                                 0
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                                                     0
                                                               0
                                                                         0
##
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
               Otu10544 Otu10545 Otu10546 Otu10547
                                                       Otu10548
                                                                 Otu10549
##
                                                                           Otu10550
##
   CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI023 2.041025e-05
                                           0
                                                     0
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                                                                         0
                                                                                   0
                                 0
   CSI034 0.000000e+00
                                 0
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                                                                                   0
   CSI045 0.000000e+00
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                                                                         0
   CSI056 0.000000e+00
                                 0
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                                                     0
                                                               0
                                                                         0
                                                                                   0
##
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
##
           Otu10551
                         Otu10552 Otu10553 Otu10554
                                                       Otu10555
                                                                      Otu10556
## CSI002
                                                     0
                                                               0 4.086581e-05
                  0 0.000000e+00
                                           0
   CSI013
                                           0
                                                     0
                                                               0 0.000000e+00
##
                  0 0.00000e+00
## CSI023
                  0 0.00000e+00
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI034
                  0 5.684725e-05
                                           0
                                                     0
                                                               0 0.000000e+00
   CSI045
                                           0
                                                     0
                                                                 0.000000e+00
##
                  0 0.00000e+00
                                           0
                                                     0
##
   CSI056
                   0 0.000000e+00
                                                               0 0.00000e+00
                                           0
                                                     0
   CSI066
                   0 0.000000e+00
                                                               0 0.000000e+00
##
##
               Otu10557 Otu10558 Otu10559 Otu10560
                                                       Otu10561
                                                                      0tu10562
##
   CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI013 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 3.195807e-05
   CSI023 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI034 3.789817e-05
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
   CSI045 0.000000e+00
                                 0
                                           0
                                                     0
                                                                 0.000000e+00
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
##
                                                               0 0.00000e+00
##
   CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0 0.00000e+00
##
           Otu10563 Otu10564 Otu10565 Otu10566 Otu10567 Otu10568 Otu10569
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
  CSI013
                  0
                            0
                                      0
                                                0
                                                          0
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##
  CSI023
                            0
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                  0
                                      0
  CSI034
                  0
                            0
                                      0
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                                                          0
                                                                    0
                                                                              0
##
                            0
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##
   CSI045
                  0
                                       0
                                                          0
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                            0
                                      0
                                                0
                                                          0
                                                                    0
##
   CSI056
                   Λ
                                                                              0
                            0
                                       0
                                                0
                                                          0
##
   CSI066
                                                                              0
               Otu10570 Otu10571 Otu10572 Otu10573 Otu10574
##
                                                                 0tu10575
   CSI002 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
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                                 0
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                                                               0
                                                                         0
   CSI013 0.000000e+00
                                           0
   CSI023 0.000000e+00
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                                                                         0
   CSI034 0.000000e+00
                                 0
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                                                     0
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                                                                         0
   CSI045 0.000000e+00
                                 0
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                                                               0
                                                                         0
   CSI056 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
##
  CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
##
               Otu10576
                             Otu10577 Otu10578 Otu10579 Otu10580 Otu10581
```

```
## CSI002 1.362194e-05 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                               0
   CSI013 0.000000e+00 3.195807e-05
                                                0
                                                                    0
                                                          0
                                                                               0
   CSI023 0.000000e+00 0.000000e+00
                                                0
                                                          0
                                                                    0
                                                                               0
   CSI034 1.894908e-05 0.000000e+00
                                                0
                                                          Λ
                                                                    0
                                                                               0
   CSI045 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                               0
   CSI056 0.000000e+00 0.000000e+00
                                                0
                                                                    0
                                                          0
                                                                               0
   CSI066 0.000000e+00 0.000000e+00
                                                0
                                                                    0
                                                          0
           Otu10582 Otu10583 Otu10584 Otu10585 Otu10586 Otu10587
##
                                                                       0tu10588
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI013
                             0
                                       0
                                                 0
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                   0
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## CSI023
                   0
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                                       0
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                                                           0
                                                                     0
                                                                                0
## CSI034
                   0
                             0
                                       0
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                                                                                0
##
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
                             0
                                                 0
                                                                                0
## CSI056
                   0
                                       0
                                                           0
##
  CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                                0
##
           Otu10589
                          Otu10590 Otu10591 Otu10592 Otu10593
                                                                      Otu10594
## CSI002
                                           0
                                                     0
                                                                0 0.000000e+00
                   0 1.362194e-05
   CSI013
                   0 0.000000e+00
                                           0
                                                      0
                                                                0 0.00000e+00
  CSI023
                   0 0.000000e+00
                                           0
                                                      0
                                                                0 0.00000e+00
##
## CSI034
                   0 0.00000e+00
                                           0
                                                      0
                                                                0 0.00000e+00
##
   CSI045
                   0 0.000000e+00
                                           0
                                                      0
                                                                0 0.00000e+00
  CSI056
                   0 0.000000e+00
                                           0
                                                      0
                                                                0 0.000000e+00
                                           0
                                                      0
##
  CSI066
                   0 0.000000e+00
                                                                0 0.00000e+00
           Otu10595
                     Otu10596 Otu10597 Otu10598 Otu10599 Otu10600 Otu10601
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI023
                   0
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                                       0
                                                 0
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                                                                     0
                                                                                0
## CSI034
                             0
                                                 0
                                                           0
                                                                     0
                   0
                                       0
                                                                                0
## CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI056
                   0
                             0
                                       0
                                                 0
                                                                     0
                                                                                0
## CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
##
           Otu10602 Otu10603 Otu10604 Otu10605 Otu10606
                                                                  Otu10607 Otu10608
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI013
                   0
                             0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
                                       0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                           0 0.00000e+00
                                                                                    0
## CSI034
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
## CSI045
                   0
                             0
                                                           0 0.00000e+00
                                                                                    0
## CSI056
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
                                                                                    0
  CSI066
                   0
                             0
                                       0
                                                 0
                                                           0 0.000000e+00
##
##
           Otu10609 Otu10610 Otu10611 Otu10612 Otu10613 Otu10614 Otu10615
                             0
## CSI002
                   0
                                       0
                                                 0
                                                           0
                                                                                0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                                0
## CSI034
                                       0
## CSI045
                             0
                                                 0
                                                           0
                                                                     0
                                                                                0
                   0
                                       0
## CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                                0
##
  CSI066
                   0
                             0
                                       0
                                                           0
                                                                     0
                                                                                0
##
           Otu10616 Otu10617 Otu10618
                                              Otu10619 Otu10620 Otu10621 Otu10622
## CSI002
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI013
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI023
                   0
                             0
                                       0 0.000000e+00
                                                                0
                                                                          0
                                                                                    0
                             0
## CSI034
                   0
                                       0 0.00000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI045
                   0
                             0
                                       0 0.00000e+00
                                                                0
                                                                          0
                                                                                    0
## CSI056
                   0
                             0
                                       0 1.959286e-05
                                                                0
                                                                          0
                                                                                    0
```

##	CSI066	0	0	0	0.0000006	e+00		0	0	0
##		Otu10623	Otu106	24 Otu10	0625 Otu10	0626	(	)tu10627	0tu1062	8
##	CSI002	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##	CSI013	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##	CSI023	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##	CSI034	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##	CSI045	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##	CSI056	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##	CSI066	0	0.000000e+	00	0	0 0	.000	0000e+00		0
##		Otu10629	Otu10630 O	tu10631	Otu10632	Otu10	633	Otu10634	Ot:	u10635
##	CSI002	0	0	0	0		0	0	0.0000	00e+00
##	CSI013	0	0	0	0		0	0	0.0000	00e+00
##	CSI023	0	0	0	0		0	0	0.0000	00e+00
##	CSI034	0	0	0	0		0	0	0.0000	00e+00
##	CSI045	0	0	0	0		0	0	0.0000	00e+00
##	CSI056	0	0	0	0		0	0	0.0000	00e+00
##	CSI066	0	0	0	0		0	0	0.0000	00e+00
##		Otu10636	Otu10637 O	tu10638	Otu10639	Otu10	640	Otu10641	Otu106	42
	CSI002	0	0	0	0		0	0		0
	CSI013	0	0	0	0		0	0		0
	CSI023	0	0	0	0		0	0		0
	CSI034	0	0	0	0		0	0		0
	CSI045	0	0	0	0		0	0		0
	CSI056	0	0	0	0		0	0		0
	CSI066	0	0	0	0	0+10	0	0	0+100	0
##	CSI002	0	Otu10644 O	tu10645	000000000000000000000000000000000000000	Utulo	047	000000000000000000000000000000000000000	Utulub	49 0
##	CSI002	0	0	0	0		0	0		0
##	CSI013	0	0	0	0		0	0		0
##	CSI023	0	0	0	0		0	0		0
##	CSI045	0	0	0	0		0	0		0
##	CSI056	0	0	0	0		0	0		0
##	CSI066	0	0	0	0		0	0		0
##		Otu10650	Otu10651 O	tu10652	Otu10653	Otu10	654	Otu10655	Otu106	56
##	CSI002	0	0	0	0		0	0		0
##	CSI013	0	0	0	0		0	0		0
##	CSI023	0	0	0	0		0	0		0
##	CSI034	0	0	0	0		0	0		0
##	CSI045	0	0	0	0		0	0		0
##	CSI056	0	0	0	0		0	0		0
##	CSI066	0	0	0	0		0	0		0
##		Otu10657	Otu10658 O	tu10659	Otu10660	Otu10	661	Otu10662	Otu106	63
	CSI002	0	0	0	0		0	0		0
	CSI013	0	0	0	0		0	0		0
	CSI023	0	0	0	0		0	0		0
	CSI034	0	0	0	0		0	0		0
	CSI045	0	0	0	0		0	0		0
	CSI056	0	0	0	0		0	0		0
	CSI066	0+110664	0	0 +u10666	0+110667	0+1110	0	0+11	0660	0
##	CSI002	0	Otu10665 O	0	0	otaro		Otu1		
##	CS1002 CSI013	0	0	0	0			0.000000		
##	CSI013	0	0	0	0			0.000000		
	CS1023	0	0	0	0			0.000000		
ππ	0D1004	O	U	J	U		U	0.00000	5.00	

```
## CSI045
                  0
                            0
                                      0
                                                          0 3.265093e-05
## CSI056
                                                0
                                                          0 0.000000e+00
                  0
                            0
                                      0
## CSI066
                            0
                                                0
                                                          0 0.000000e+00
##
               Otu10670 Otu10671
                                       Otu10672 Otu10673 Otu10674 Otu10675
## CSI002 0.000000e+00
                                 0 2.724387e-05
                                                         0
                                                                   0
                                                                             0
## CSI013 3.195807e-05
                                 0 0.000000e+00
                                                         Λ
                                                                   0
                                                                             0
## CSI023 0.000000e+00
                                 0 0.00000e+00
                                                                   0
                                                         0
                                                                             0
## CSI034 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
   CSI045 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
                                                                             0
                                                                   Λ
   CSI056 0.000000e+00
                                 0 0.000000e+00
                                                         Λ
                                                                             Λ
   CSI066 0.000000e+00
                                 0 0.00000e+00
                                                         0
                                                                   0
##
           Otu10676 Otu10677 Otu10678 Otu10679 Otu10680 Otu10681 Otu10682
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                            0
                                                0
                                                          0
                                                                    0
                  0
                                      0
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## CSI023
                  0
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                                      0
                                                0
## CSI034
                  0
                            0
                                      0
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                                                                              0
                  0
                            0
                                                0
                                                          0
## CSI045
                                      0
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                                                                              0
##
  CSI056
                            0
                                                0
                                                          0
                                                                    0
                                                                              0
##
   CST066
                  0
                            0
                                      0
##
               Otu10683 Otu10684 Otu10685 Otu10686 Otu10687 Otu10688 Otu10689
## CSI002 0.000000e+00
                                 0
                                           0
                                                     Ω
                                                               0
                                                                         0
                                                                                   0
## CSI013 0.000000e+00
                                 0
                                           0
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## CSI023 0.000000e+00
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                                                                         0
## CSI034 0.000000e+00
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                                 0
## CSI045 0.000000e+00
                                           0
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                                                               0
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                                                                                   0
## CSI056 1.959286e-05
                                 0
                                           0
                                                     0
                                                               0
                                                                                   0
## CSI066 0.000000e+00
                                 0
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                   Otu10692 Otu10693 Otu10694 Otu10695 Otu10696
           Otu10690 Otu10691
## CSI002
                  0
                            0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI013
                  0
                            0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI023
                  0
                            0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI034
                  0
                            0 1.894908e-05
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI045
                  0
                            0 0.00000e+00
                                                     0
                                                               0
                                                                                   0
## CSI056
                            0 0.000000e+00
                                                     0
                                                               0
                                                                                   0
                  0
                                                                         0
                  0
                            0 0.00000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
   CSI066
           Otu10697 Otu10698 Otu10699 Otu10700 Otu10701 Otu10702 Otu10703
##
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  Ω
                            0
                                      0
                                                0
                                                          0
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                                                                              0
## CSI023
                  0
                            0
                                                0
                                                          0
                                                                    0
                                      0
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## CSI034
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## CSI045
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## CSI056
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##
   CSI066
                  0
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                                                                              0
           Otu10704 Otu10705 Otu10706 Otu10707 Otu10708
##
                                                                 Otu10709 Otu10710
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
## CSI013
                  0
                                                0
                                                          0 3.195807e-05
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                            0
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## CSI023
                  0
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                                                          0 0.00000e+00
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## CSI034
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                                                          0 0.00000e+00
## CSI045
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                                                          0 0.000000e+00
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## CSI056
                  0
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                                      0
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                                                          0 0.00000e+00
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                            0
                                      0
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##
                  0
                                                          0 0.00000e+00
##
           Otu10711 Otu10712 Otu10713 Otu10714 Otu10715 Otu10716 Otu10717
## CSI002
                  0
                            0
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## CSI013
                  0
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```

		_	_	_	_		_			_
##	CSI023	0	0	0	0		0	0		0
##	CSI034	0	0	0	0		0	0		0
##	CSI045	0	0	0	0		0	0		0
##	CSI056	0	0	0	0		0	0		0
##	CSI066	0	0	0	0	_	0	0		0
##			Otu10719		Otu10721	Otu10			Otu1	
##	CSI002	0	0	0	0		0	0		0
##	CSI013	0	0	0	0		0	0		0
##	CSI023	0	0	0	0		0	0		0
##	CSI034	0	0	0	0		0	0		0
##	CSI045	0	0	0	0		0	0		0
##	CSI056	0	0	0	0		0	0		0
##	CSI066	0	0	0	0		0	0		0
##				Otu10727		Otu10			Otu1	0731
##	CSI002	0	0	0	0		0	0		0
##	CSI013	0	0	0	0		0	0		0
##	CSI023	0	0	0	0		0	0		0
##	CSI034	0	0	0	0		0	0		0
##	CSI045	0	0	0	0		0	0		0
##	CSI056	0	0	0	0		0	0		0
##	CSI066	0	0	0	0		0	0		0
##		Otu10732			0734 Otu10			Otu10		
##	CSI002	0	0	0.0000006		0	0		0	
##	CSI013	0	0	0.0000006		0	0		0	
##	CSI023	0	0	0.0000006		0	0		0	
##	CSI034	0	0	1.8949086		0	0		0	
##	CSI045	0	0			0	0		0	
##	CSI056	0		0.0000006		0	0		0	
##	CSI066	0		0.0000006		0	0		0	
##		Otu10		)tu10739 (		Jtu107			tu107	
##			e+00 0.000		0		0	0		0
##			e+00 0.000		0		0	0		0
##			e+00 0.000		0		0	0		0
##			e+00 0.000		0		0	0		0
##			e+00 0.000		0		0	0		0
##			e+00 0.000		0		0	0		0
##	CS1066		e+00 1.916		0	2747 0	0	0		0
##	aa tooo	Otu10744			0746 Otu10				tu107	
	CSI002	0		0.0000006		0		0.000		
	CSI013	0		0.0000006		0		0.000		
	CSI023	0		0.0000006		0		0.000		
	CSI034	0		3.7898176		0		0.000		
	CSI045	0		0.0000006		0		0.000		
##	CSI056	0		0.0000006		0		1.959		
##	CSI066	0		0.0000006		0		0.000		
##	aa tooo			Otu10752						Otu10756
##	CSI002	0	0	0			000e+00		0	0
##	CSI013	0	0	0			000e+00		0	0
##	CSI023	0	0	0			000e+00		0	0
##	CSI034	0	0	0			000e+00		0	0
	CSI045	0	0	0			000e+00		0	0
	CSI056	0	0	0			000e+00		0	0
	CSI066	0	0	0			000e+00		0	760
##		Otu10757	Utu10/58	Utu1(	0759 Otu10	J/60 U	tu10/61	Ü	tu107	702

```
## CSI002
                             0 0.00000e+00
                                                     0
                                                               0 0.00000e+00
## CSI013
                   0
                             0 0.000000e+00
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                                                               0 0.00000e+00
                                                     0
                                                               0 0.00000e+00
## CSI023
                             0 0.00000e+00
                                                     0
## CSI034
                   0
                             0 0.000000e+00
                                                               0 0.00000e+00
## CSI045
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                             0 0.000000e+00
                                                     0
                                                               0 0.000000e+00
## CSI056
                   0
                             0 0.000000e+00
                                                     0
                                                               0 1.959286e-05
                             0 1.916847e-05
                                                     0
                                                               0 0.000000e+00
## CSI066
                         Otu10764 Otu10765 Otu10766 Otu10767 Otu10768
##
           Otu10763
## CSI002
                   0 0.000000e+00
                                           0
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## CSI013
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                   0 0.000000e+00
## CSI023
                   0 0.000000e+00
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## CSI034
                   0 0.000000e+00
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##
   CSI045
                   0 3.265093e-05
                                           0
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##
  CSI056
                   0 0.00000e+00
                                                                          0
##
   CSI066
                   0 0.000000e+00
                                           0
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##
               Otu10769 Otu10770 Otu10771 Otu10772 Otu10773 Otu10774 Otu10775
  CSI002 0.000000e+00
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##
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   CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 3.833694e-05
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           Otu10776 Otu10777 Otu10778 Otu10779 Otu10780 Otu10781 Otu10782
##
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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##
           Otu10783 Otu10784 Otu10785 Otu10786 Otu10787 Otu10788 Otu10789
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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##
               Otu10790 Otu10791 Otu10792 Otu10793 Otu10794 Otu10795 Otu10796
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
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##
           Otu10797 Otu10798 Otu10799 Otu10800 Otu10801 Otu10802 Otu10803
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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```

##	CSI066	0	0	0		0	0	0	0	
##		Otu10804	Otu10805	Otu10	0806 Ot		(	)tu10808 (	Otu10809	
##	CSI002	0	0	0.0000006	e+00	0	0.000	0000e+00	0	
##	CSI013	0	0	0.0000006	e+00	0	6.39	1614e-05	0	
##	CSI023	0	0	0.0000006	e+00	0	0.000	0000e+00	0	
##	CSI034	0	0	0.0000006	e+00	0	0.000	0000e+00	0	
##	CSI045	0	0	0.0000006	e+00	0	0.000	0000e+00	0	
##	CSI056	0	0	1.959286	e-05	0	0.000	0000e+00	0	
##	CSI066	0		0.0000006	e+00	0	0.000	0000e+00	0	
##			Otu10811			u10813	Otu10	0814 Otu10	0815 Otu10	816
##	CSI002	0		0.0000006		0		0	0	0
##	CSI013	0		0.0000006		0		0	0	0
##	CSI023	0		0.0000006		0		0	0	0
##	CSI034	0		1.8949086		0		0	0	0
##	CSI045	0		0.0000006		0		0	0	0
##	CSI056	0		0.0000006		0		0	0	0
##	CSI066	0		0.0000006		0	10001	0	0	0
##	CSI002	0	0 0 0	Otu10819	Utulua	0 0tu	10821	0	0	
##	CS1002	0	0	0		0	0	0	0	
	CSI013	0	0	0		0	0	0	0	
	CSI023	0	0	0		0	0	0	0	
##	CSI045	0	0	0		0	0	0	0	
##	CSI056	0	0	0		0	0	0	0	
##	CSI066	0	0	0		0	0	0	0	
##		Otu10824	Otu10825	Otu10826	Otu108	327 Otu	10828	Otu10829	Otu10830	
##	CSI002	0	0	0		0	0	0	0	
##	CSI013	0	0	0		0	0	0	0	
##	CSI023	0	0	0		0	0	0	0	
##	CSI034	0	0	0		0	0	0	0	
##	CSI045	0	0	0		0	0	0	0	
##	CSI056	0	0	0		0	0	0	0	
##	CSI066	0	0	0		0	0	0	0	
##		Otu10831	Otu10832	Otu10833	Otu108	34 Otu	10835	Otu10836	Otu10837	
##	CSI002	0	0	0		0	0	0	0	
##	CSI013	0	0	0		0	0	0	0	
	CSI023	0	0	0		0	0	0	0	
	CSI034	0	0	0		0	0	0	0	
	CSI045 CSI056	0	0	0		0	0	0	0	
	CS1056	0	0	0		0	0	0	0	
##	CSTOOO		-	Otu10840	Ω+11108		-	-	_	
	CSI002	0	0	0.0010040	Utuloc	0	0	0	0	
	CSI013	0	0	0		0	0	0	0	
	CSI023	0	0	0		0	0	0	0	
	CSI034	0	0	0		0	0	0	0	
##	CSI045	0	0	0		0	0	0	0	
##	CSI056	0	0	0		0	0	0	0	
##	CSI066	0	0	0		0	0	0	0	
##		Otu10845	Otu10846	Otu10847	Otu108	48 Otu	10849	Otu10850	Otu10851	
##	CSI002	0	0	0		0	0	0	0	
##	CSI013	0	0	0		0	0	0	0	
##	CSI023	0	0	0		0	0	0	0	
##	CSI034	0	0	0		0	0	0	0	

```
## CSI045
                  0
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## CST056
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## CSI066
                  0
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##
          Otu10852 Otu10853 Otu10854 Otu10855 Otu10856 Otu10857 Otu10858
## CSI002
                  0
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
## CSI066
                  0
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          Otu10859 Otu10860 Otu10861 Otu10862 Otu10863 Otu10864 Otu10865
##
## CSI002
                  0
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CST066
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          Otu10866 Otu10867 Otu10868 Otu10869
                                                      Otu10870 Otu10871 Otu10872
## CSI002
                  Λ
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                                               0 0.000000e+00
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## CSI013
                            0
                                      0
                                               0 6.391614e-05
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## CSI023
                            0
                                               0 0.000000e+00
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                  0
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## CSI034
                  0
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## CSI045
                  0
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## CSI056
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## CSI066
                  0
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                                     0
                                               0 0.000000e+00
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          Otu10873 Otu10874 Otu10875 Otu10876 Otu10877 Otu10878 Otu10879
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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##
          Otu10880 Otu10881
                                  Otu10882
                                                Otu10883 Otu10884 Otu10885
## CSI002
                  0
                            0 1.362194e-05 2.724387e-05
                                                                  0
## CSI013
                  0
                            0 0.000000e+00 0.000000e+00
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## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
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                            0 0.000000e+00 0.000000e+00
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## CSI034
                            0 0.000000e+00 0.000000e+00
## CSI045
## CSI056
                  0
                            0 0.000000e+00 0.000000e+00
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                            0 0.000000e+00 0.000000e+00
                                                                  0
##
  CSI066
                  0
##
               Otu10886 Otu10887 Otu10888 Otu10889 Otu10890 Otu10891
## CSI002 0.000000e+00
                                0
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 1.916847e-05
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               Otu10892 Otu10893 Otu10894 Otu10895 Otu10896 Otu10897 Otu10898
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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```

##	CST023	0.0000006	2+00	0	0	0		0		0		0
##		0.0000000		0	0	0		0		0		0
##		0.0000000		0	0	0		0		0		0
##		0.0000000		0	0	0		0		0		0
##		0.0000000		0	0	0		0		0		0
##	001000			Otu10901	-	-	0903	-	10904	•	0905	Ŭ
##	CSI002	0	0	0	0	0042	0	004	0	0043	0	
##	CSI013	0	0	0	0		0		0		0	
##	CSI023	0	0	0	0		0		0		0	
##	CSI034	0	0	0	0		0		0		0	
##	CSI045	0	0	0	0		0		0		0	
##	CSI056	0	0	0	0		0		0		0	
##	CSI066	0	0	0	0		0		0		0	
##		Otu10906	Otu10907	Otu10	0908 Otu1	0909	Otu10	910	Otu10	911	Otu109	912
##	CSI002	0		0.000000		0		0		0		0
##	CSI013	0	0	0.000000	e+00	0		0		0		0
##	CSI023	0	0	0.000000	e+00	0		0		0		0
##	CSI034	0	0	3.789817		0		0		0		0
##	CSI045	0	0	0.000000	e+00	0		0		0		0
##	CSI056	0	0	0.0000006	e+00	0		0		0		0
##	CSI066	0	0	0.0000006	e+00	0		0		0		0
##		Otu10913	Otu10914	Otu10915	Otu10916	Otu1	.0917		Otu10	918	Otu109	919
##	CSI002	0	0	0	0		0	0.00	00000	e+00		0
##	CSI013	0	0	0	0		0	0.00	)0000e	e+00		0
##	CSI023	0	0	0	0		0	0.00	)0000e	e+00		0
##	CSI034	0	0	0	0		0	0.00	)0000e	e+00		0
##	CSI045	0	0	0	0		0	6.53	30186	e-05		0
##	CSI056	0	0	0	0		0	0.00	00000	e+00		0
##	CSI066	0	0	0	0		0	0.00	00000	e+00		0
##		Otu10920	Otu10921	Otu10922	Otu10923	Otu1	.0924	Otu	10925	Otu1	10926	
##	CSI002	0	0	0	0		0		0		0	
##	CSI013	0	0	0	0		0		0		0	
##	CSI023	0	0	0	0		0		0		0	
##	CSI034	0	0	0	0		0		0		0	
##	CSI045	0	0	0	0		0		0		0	
##	CSI056	0	0	0	0		0		0		0	
##	CSI066	0	0	0	0		0		0		0	
##				Otu10929		Otu1		Otu1		Otu1		
	CSI002	0	0	0	0		0		0		0	
	CSI013	0	0	0	0		0		0		0	
	CSI023	0	0	0	0		0		0		0	
	CSI034	0	0	0	0		0		0		0	
	CSI045	0	0	0	0		0		0		0	
##	CSI056	0	0	0	0		0		0		0	
##	CSI066	0	0	0	0		0	2000	0		0	240
##	aa tooo			Otu10936					Utu10		Otu109	
##	CSI002	0	0	0			00000			0		0
##	CSI013	0	0	0			1614			0		0
##	CSI023	0	0	0			00000			0		0
##	CSI034	0	0	0			00000			0		0
##	CSI045 CSI056	0	0	0			)0000e			0		0
##		0	0	0						0		0
	CSI066	-	-	0 0tu10943			00006 0045		10046	-	0047	U
##		JULI 10941	Jul 10942	JULI 10943	ULU10944	otul	.0945	otu.	10946	otul	10941	

		_					_	_
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu10948 Otu	10949 0	tu10950	Otu10951	Otu10952	Otu10953	Otu10954
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu10955 Otu	10956 O	tu10957	Otu10958	Otu10959	Otu10960	Otu10961
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##	001000	Otu10962	) Dt	•	·	)tu10965 (	·	Otu10967
##	CST002	0.000000e+00			0	0		0.000000e+00
##		0.000000e+00			0	0		0.000000e+00
##		0.000000e+00			0	0		0.000000e+00
##		0.000000e+00			0	0		3.789817e-05
##		0.000000e+00			0	0		0.000000e+00
##		0.000000e+00			0	0		0.000000e+00
##		0.000000e+00			0	0		0.000000e+00
##	0.000	Otu10968 Otu			Ω±1110971	Otu10972		Otu10974
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##	001000	Otu10975	•		-	) 0tu10978 (	-	-
	CST002	0.000000e+00			0	0	0	0
		0.000000e+00			0	0	0	0
		0.000000e+00			0	0	0	0
		0.000000e+00			0	0	0	0
		0.000000e+00			0	0	0	0
		0.000000e+00			0	0	0	0
##		0.000000e+00			0	0	0	0
##	251000	Otu10981 Otu			_	-	-	
	CSI002	0	0	0	00010304	00010303	00000	0
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI043	0	0	0	0	0	0	0
1T #	201000	U	U	U	U	U	U	J

##	CSI066	0	0		0		0		0		0		0	
##		Otu1098	3 Otu10	) 989	Otu10	990	Otu10	991	Otu10	992	(	tu10	993	
##	CSI002	0.000000e+0	)	0		0		0		0	0.000	0000	+00	
##	CSI013	0.000000e+0	)	0		0		0		0	0.000	0000	+00	
##	CSI023	4.082049e-0	5	0		0		0		0	0.000	)000e	e+00	
##	CSI034	0.000000e+0	)	0		0		0		0	0.000	0000	e+00	
##	CSI045	0.000000e+0	)	0		0		0		0	0.000	)000e	e+00	
##	CSI056	0.000000e+0	)	0		0		0		0	3.918	3572€	e-05	
##	CSI066	0.000000e+0	)	0		0		0		0	0.000	0000	e+00	
##		Otu10994 Ot	110995	Otu1		Otu1		Otu1	.0998	Otu1	10999		Otu110	
##	CSI002	0	0		0		0		0		0		)0000e+	
##	CSI013	0	0		0		0		0		0		)0000e+	
##	CSI023	0	0		0		0		0		0		)0000e+	
##	CSI034	0	0		0		0		0		0		)0000e+	
##	CSI045	0	0		0		0		0		0		30186e-	
##	CSI056	0	0		0		0		0		0		0000e+	
##	CSI066	0	0	0+1	0		0	004	0	005	0		0000e+	
##	CSI002	Otu11001 Ot 0	111002	Otu1	1003	0 00	0000e		Utull	0	otu1.	0001	Otu110	0
##	CSI002	0	0		0		)0000e			0		0		0
##	CSI013	0	0		0		32049e			0		0		0
##	CSI023	0	0		0		)0000e			0		0		0
##	CSI045	0	0		0		)0000e			0		0		0
##	CSI056	0	0		0		)0000e			0		0		0
##	CSI066	0	0		0		)0000e			0		0		0
##	0.000	Otu11008 Ot	-	Otu1	1010		1011		1012	-	1013	Otui	1014	·
##	CSI002	0	0		0		0		0		0		0	
##	CSI013	0	0		0		0		0		0		0	
##	CSI023	0	0		0		0		0		0		0	
##	CSI034	0	0		0		0		0		0		0	
##	CSI045	0	0		0		0		0		0		0	
##	CSI056	0	0		0		0		0		0		0	
##	CSI066	0	0		0		0		0		0		0	
##		Otu11015 Ot	111016	(	Otu1:	1017	Otu11	.018	Otu11	019	Otu11	1020	Otu110	21
##	CSI002	0	0	0.000				0		0		0		0
##	CSI013	0	0	0.000				0		0		0		0
	CSI023	0	0	0.000				0		0		0		0
	CSI034	0		0.000				0		0		0		0
	CSI045	0		6.530				0		0		0		0
	CSI056 CSI066	0		0.000				0		0		0		0
##	C21000	0 Otu11022 Ot		0.000			1005	0	1006	0	11007	•	1000	0
	CSI002	0	0	otur.	0	Utui	0	Utui	0_102	Utu.	0	Utu.	0	
	CSI002	0	0		0		0		0		0		0	
	CSI013	0	0		0		0		0		0		0	
	CSI034	0	0		0		0		0		0		0	
	CSI045	0	0		0		0		0		0		0	
	CSI056	0	0		0		0		0		0		0	
##	CSI066	0	0		0		0		0		0		0	
##		Otu11029 Ot	-	Otu1	1031	Otu1	-	Otu1	-	Otu1	1034	Otu1	-	
##	CSI002	0	0		0		0		0		0		0	
##	CSI013	0	0		0		0		0		0		0	
##	CSI023	0	0		0		0		0		0		0	
##	CSI034	0	0		0		0		0		0		0	

```
## CSI045
                 0
                          0
                                    0
                                                       0
## CST056
                 0
                          0
                                    0
                                             0
                                                       0
                                                                0
## CSI066
                 0
                          0
                                    0
                                             0
                                                       0
          Otu11036 Otu11037 Otu11038 Otu11039 Otu11040 Otu11041 Otu11042
## CSI002
                 0
                          0
                                    0
                                             0
                                                       0
                                                                0
## CSI013
                 Λ
                          0
                                    0
                                             0
                                                       0
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## CSI023
                 0
                          0
                                    0
                                             0
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## CSI034
                 0
                          0
                                    0
                                             0
                                                       0
                                                                         0
## CSI045
                 0
                          0
                                    0
                                             0
                 0
                           0
                                    0
                                             0
## CSI056
## CSI066
                 0
                           0
         Otu11043
                       Otu11044 Otu11045 Otu11046 Otu11047 Otu11048 Otu11049
## CSI002
                 0 0.000000e+00
                                       0
                                                 0
                                                           0
                                                                    0
## CSI013
                                        0
                                                 0
                                                           0
                                                                    0
                                                                              0
                 0 0.000000e+00
## CSI023
                 0 0.000000e+00
                                       0
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                                                                    0
## CSI034
                 0 0.00000e+00
                                        0
                                                 0
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                                                                              0
                 0 0.000000e+00
                                        0
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                                                           0
                                                                    0
## CSI045
## CSI056
                 0 0.00000e+00
                                                           0
                 0 0.000000e+00
                                        0
                                                 0
                                                           0
## CST066
          Otu11050 Otu11051 Otu11052 Otu11053 Otu11054 Otu11055 Otu11056
## CSI002
                 Λ
                          0
                                    0
                                             Ω
                                                       0
                                                                Ω
                                                                         Λ
## CSI013
                          0
                                    0
## CSI023
                 0
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                                                                0
                                    0
                                             0
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## CSI034
                 0
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                                    0
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                 0
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                                    0
                                             0
## CSI045
## CSI056
                 0
                          0
                                    0
## CSI066
                 0
                          0
                                    0
                                             0
                                                       0
                                                                0
              Otu11057 Otu11058 Otu11059
                                            Otu11060 Otu11061 Otu11062
## CSI002 0.000000e+00 0
                                        0 0.000000e+00
                                                               0
## CSI013 0.000000e+00
                               0
                                        0 0.00000e+00
                                                               0
                             0
## CSI023 0.000000e+00
                                        0 0.000000e+00
                                                               0
                                                                        0
## CSI034 3.789817e-05
                             0
                                        0 0.000000e+00
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                               0
                                                               0
## CSI045 0.000000e+00
                                        0 0.00000e+00
## CSI056 0.000000e+00
                               0
                                                               0
                                        0 0.00000e+00
## CSI066 0.000000e+00
                              0
                                        0 3.833694e-05
                                                               0
          Otu11063 Otu11064 Otu11065 Otu11066 Otu11067 Otu11068 Otu11069
## CSI002
                 0
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                                                                0
## CSI013
                 Λ
                          0
                                    0
                                             0
                                                       0
                                                                Ω
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## CSI023
                 0
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                                    0
                                             0
                                                       0
## CSI034
                 Λ
                          Λ
                                    Ω
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                                                                Ω
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## CSI045
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## CSI056
                 0
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                                                                         0
          Otu11070 Otu11071 Otu11072 Otu11073 Otu11074 Otu11075 Otu11076
                 0
                          0
                                    0
                                             0
                                                       0
## CSI002
## CSI013
                 0
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                                    0
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## CSI023
                 0
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## CSI034
## CSI045
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## CSI056
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                                    0
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                                                                0
## CSI066
                           0
                                    0
                                             0
                                                       0
                                                                0
                 0
          Otu11077
                       Otu11078 Otu11079 Otu11080 Otu11081 Otu11082 Otu11083
## CSI002
                 0 0.000000e+00
                                       0
                                                 0
                                                           0
                                                                    0
                                                                             0
                                                           0
## CSI013
                 0 0.000000e+00
                                        0
                                                 0
                                                                    0
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```

```
## CSI023
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
## CSI034
                   0 1.894908e-05
                                            0
                                                      0
                                                                0
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                                                                                     0
## CSI045
                   0 0.00000e+00
                                            0
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  CSI056
                   0 0.000000e+00
                                            0
                                                                           0
##
##
   CSI066
                   0
                     0.000000e+00
                                            0
                                                      0
                                                                 0
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                                                                                     0
##
           Otu11084
                          Otu11085 Otu11086 Otu11087 Otu11088 Otu11089 Otu11090
                   0 0.000000e+00
                                            0
                                                                0
  CSI002
                                                      0
                                                                           0
                                                                                     0
## CSI013
                                                                 0
                   0 0.00000e+00
                                            0
                                                      0
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  CSI023
                   0 0.000000e+00
                                            0
                                                      0
                                                                 0
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                                                                                     0
                                            0
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                                                                           Λ
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## CSI034
                   0 0.000000e+00
   CSI045
                   0 0.000000e+00
                                            0
                                                      0
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                                            0
                                                                0
                                                                                     0
   CSI056
                   0 0.000000e+00
                                                      0
                                                                           0
##
##
   CSI066
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
                                                                           0
           Otu11091 Otu11092 Otu11093 Otu11094 Otu11095 Otu11096 Otu11097
##
## CSI002
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI013
                   0
                             0
                                       0
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                                                            0
                                                                      0
                                                                                0
## CSI023
                   0
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                                                            0
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                                                                                0
                                       0
   CSI034
                   0
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                                        0
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                                                                                0
  CSI045
                   0
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                                                            0
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                                                                                0
##
## CSI056
                   0
                             0
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                                                                                0
##
   CST066
                   Λ
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           Otu11098
                     Otu11099
                               Otu11100 Otu11101 Otu11102 Otu11103
## CSI002
                                                            0
                                                                      0
                   0
                             0
                                       0
                                                  0
                                                                                0
## CSI013
                   0
                             0
                                       0
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                                                                      0
                                                                                0
                   0
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                                                            0
                                                                      0
## CSI023
                                       0
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  CSI034
                   0
                             0
                                       0
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                                                            0
                                                                      0
                                                                                0
## CSI045
                   0
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   CSI056
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                                        0
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                                                                                0
   CSI066
                   0
                                       0
##
                               Otu11107
##
           Otu11105
                     Otu11106
                                         Otu11108 Otu11109 Otu11110
## CSI002
                   0
                             0
                                       0
                                                  0
                                                            0
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                                                                                0
##
   CSI013
                   0
                             0
                                       0
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  CSI023
                   0
                             0
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## CSI034
                   0
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                                                            0
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                                                                                0
## CSI045
                   0
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                                                                      0
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##
  CSI056
                   0
                             0
                                       0
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                                                            0
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                                                                                0
   CSI066
                   0
                             0
                                        0
                                                  0
                                                            0
                                                                                0
##
           Otu11112 Otu11113 Otu11114 Otu11115
                                                        Otu11116
                                                                       Otu11117
## CSI002
                   0
                             0
                                       0
                                                  0 0.000000e+00 0.000000e+00
## CSI013
                   0
                             0
                                       0
                                                  0 0.000000e+00 0.000000e+00
## CSI023
                   0
                             0
                                                  0 0.000000e+00 0.000000e+00
## CSI034
                   0
                             0
                                       0
                                                  0 3.789817e-05 1.894908e-05
  CSI045
                   0
                             0
                                                  0 0.000000e+00 0.000000e+00
                                        0
                   0
                             0
                                        0
                                                  0 0.000000e+00 0.000000e+00
## CSI056
   CSI066
                   0
                             0
                                        0
                                                  0 0.000000e+00 0.000000e+00
##
                               Otu11120 Otu11121 Otu11122 Otu11123
##
           Otu11118
                     Otu11119
                                                                             Otu11124
## CSI002
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
  CSI013
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
##
  CSI023
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
## CSI034
                   0
                             0
                                       0
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                                                            0
                                                                      0 0.00000e+00
##
   CSI045
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
                             0
                                                  0
## CSI056
                   0
                                        0
                                                            0
                                                                      0 0.000000e+00
## CSI066
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
##
           Otu11125 Otu11126 Otu11127 Otu11128 Otu11129 Otu11130 Otu11131
```

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	CSI002	0	0	0	0		0	0		0	
##	CSI013	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
##	CSI034	0	0	0	0		0	0		0	
##	CSI045	0	0	0	0		0	0		0	
##	CSI056	0	0	0	0		0	0		0	
##	CSI066	0	0	0	0		0	0		0	
##		Otu11132	Otu11133	Otu11134	Otu11135	Otu:	11136 O	tu11137	Otu1	1138	
##	CSI002	0	0	0	0		0	0		0	
##	CSI013	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
##	CSI034	0	0	0	0		0	0		0	
##	CSI045	0	0	0	0		0	0		0	
##	CSI056	0	0	0	0		0	0		0	
##	CSI066	0	0	0	0		0	0		0	
##		Otu11139	Otu11140	Otu1	1141 Otu1	1142	0t	u11143	Otu11	144	
##	CSI002	0	0	0.000000	e+00	0	0.0000	00e+00		0	
##	CSI013	0	0	0.000000	e+00	0	0.0000	00e+00		0	
##	CSI023	0	0	0.000000	e+00	0	0.0000	00e+00		0	
##	CSI034	0	0	0.000000	e+00	0	0.0000	00e+00		0	
##	CSI045	0	0	0.000000	e+00	0	0.0000	00e+00		0	
##	CSI056	0	0	0.000000	e+00	0	3.9185	72e-05		0	
##	CSI066	0	0	3.833694	e-05	0	0.0000	00e+00		0	
##		Otu11145	Otu11146	Otu11147		1148		49 Otu1	1150	0tu11	151
##	CSI002	0	0	0	0.000000		004111	0	0	00411	0
##	CSI013	0	0	0	0.000000			0	0		0
##	CSI023	0	0	0	0.000000			0	0		0
##	CSI034	0	0	0	0.000000			0	0		0
##	CSI045	0	0	0	0.000000			0	0		0
##	CSI056	0	0	0	0.000000			0	0		0
##	CSI066	0	0	0	0.000000			0	0		0
##	001000	Otu11152	·	-			11156 D	-	•	1158	Ŭ
##	CSI002	0	0	0	0	o cu.	0	0	o cu.	0	
##	CSI013	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
##	CSI023	0	0	0	0		0	0		0	
	CSI045	0	0	0	0		0	0		0	
	CSI056	0	0	0	0		0	0		0	
	CS1036	0	0	0	0		0	0		0	
##	CDIOOO	-	-	Otu11161	_	1160	-	63 Otu1	1161		165
	CSI002	0 0 0	0		0.000000		Utulli	03 0041	0	Utull	0
	CSI002	0	0		0.000000			0	0		
								0			0
	CSI023	0	0		0.000000			0	0		0
	CSI034	0			0.000000			0	-		
	CSI045	•	0		0.000000			-	0		0
	CSI056	0	0		0.000000			0	0		0
##	CSI066	0	0		0.000000		0+111	0	0	0+11	0
##	aa tooo			1167 Otu1:			Utulli			Utull	
		0.000000		0	0	0		0	0		0
		0.0000006		0	0	0		0	0		0
		0.0000006		0	0	0		0	0		0
		0.0000006		0	0	0		0	0		0
		0.0000006		0	0	0		0	0		0
##	CSI056	1.959286	e-05	0	0	0		0	0		0

##	CSI066	1.916847	e-05	0	0	0	0	0	0
##	02200			Otu11175					ŭ
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##			Otu11181	Otu11182		Otu11184	Otu11185	Otu11186	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0+11107	0+11100	0 Otu11189	0+111100	0+11101	0+11100	0+11102	
##	CSI002	0	0	0	0 0 0	0	000011192	0	
##	CSI002	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu11194	Otu11195	Otu11196	Otu11197	Otu11198	Otu11199	Otu11200	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##				Otu11203					
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
	CSI023	0	0	0	0	0	0	0	
	CSI034 CSI045	0	0	0	0	0	0	0	
	CSI045	0	0	0	0	0	0	0	
	CSI066	0	0	0	0	0	0	0	
##	ODIOOO		Otu11209	•		_	-	1213 Otu11	214
	CSI002	0	0		0.0000006		0	0	0
	CSI013	0	0		0.0000006		0	0	0
	CSI023	0	0		0.0000006		0	0	0
	CSI034	0	0		0.0000006		0	0	0
##	CSI045	0	0	0	0.0000006	e+00	0	0	0
##	CSI056	0	0	0	0.0000006	e+00	0	0	0
##	CSI066	0	0	0	0.0000006	e+00	0	0	0
##		Otu11215	Otu11216	Otu11217	Otu11218	Otu11219	Otu11220	Otu11221	
##	CSI002	0	0	0	0	0	0	0	
	CSI013	0	0	0	0	0	0	0	
	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	

```
## CSI045
                  0
                           0
                                     0
                                                        0
                                                                            0
## CSI056
                  0
                           0
                                               0
                                                        0
                                                                  0
                                                                            0
                                     0
## CSI066
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
##
          Otu11222 Otu11223 Otu11224 Otu11225
                                                     Otu11226 Otu11227 Otu11228
## CSI002
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
## CSI013
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                      0
                                                                                0
## CSI023
                           0
                                     0
                  0
                                               0 0.00000e+00
## CSI034
                  0
                           0
                                     0
                                               0 3.789817e-05
                                                                      0
                                                                                0
  CSI045
                  0
                           0
                                     0
                                               0 0.000000e+00
                  0
                           0
                                     0
                                                                                0
## CSI056
                                               0 0.00000e+00
  CSI066
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                                0
##
              Otu11229 Otu11230 Otu11231 Otu11232 Otu11233
                                                                   Otu11234
## CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.000000e+00
                                0
                                                   0
                                                             0 0.00000e+00
## CSI013 0.000000e+00
                                         0
## CSI023 4.082049e-05
                                         0
                                                   0
                                                             0 0.000000e+00
                                0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 0.00000e+00
  CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0 6.530186e-05
   CSI056 0.000000e+00
                                                   0
                                                             0 0.00000e+00
                                0
                                         0
                                                             0 0.000000e+00
   CST066 0.000000e+00
                                                   0
          Otu11235 Otu11236 Otu11237 Otu11238
                                                     Otu11239 Otu11240 Otu11241
## CSI002
                  Λ
                           0
                                     Ω
                                               0 0.000000e+00
                                                                      Λ
                                                                                0
## CSI013
                           0
                                     0
                                               0 0.000000e+00
                                                                                0
## CSI023
                           0
                                               0 0.000000e+00
                                                                                0
                  0
                                     0
                                                                      0
## CSI034
                  0
                           0
                                     0
                                               0 3.789817e-05
                                                                      0
                           0
                                     0
                                                                      0
## CSI045
                  0
                                               0 0.000000e+00
## CSI056
                  0
                           0
                                     0
                                               0 0.000000e+00
                                                                                0
## CSI066
                  0
                           0
                                     0
                                               0 0.00000e+00
                                                                      0
                                                                                0
          Otu11242 Otu11243 Otu11244 Otu11245 Otu11246 Otu11247 Otu11248
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI023
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI034
                  0
                           0
                                     0
                                               0
                                                        0
                                                                            0
## CSI045
                  0
                           0
                                     0
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
##
          Otu11249 Otu11250 Otu11251 Otu11252 Otu11253 Otu11254 Otu11255
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
## CSI013
                  Ω
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI023
                  0
                           0
                                     0
                                               0
                                                         0
                                                                            0
                  Λ
                           0
                                     0
                                               0
                                                        Λ
                                                                  0
## CSI034
                                                                            0
                           0
## CSI045
                                                                            0
## CSI056
                  0
                            0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
   CSI066
                  0
                           0
                                     0
                                                        0
                                                                  0
                        Otu11257 Otu11258
##
          0tu11256
                                               Otu11259 Otu11260 Otu11261
                                         0 1.362194e-05
## CSI002
                  0 0.000000e+00
                                                                 0
## CSI013
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
                                                                           0
## CSI023
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
                                                                 0
                                                                           0
## CSI034
                  0 1.894908e-05
                                         0 0.000000e+00
## CSI045
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
## CSI056
                  0 0.000000e+00
                                         0 0.00000e+00
                                                                 0
                                                                           0
                  0 0.000000e+00
                                         0 0.000000e+00
                                                                 0
          Otu11262 Otu11263 Otu11264 Otu11265 Otu11266 Otu11267 Otu11268
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
## CSI013
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                            0
```

##	CSI023	0	0	0	0	0	0		0
##	CSI023	0	0	0	0	0	0		0
##	CSI045	0	0	0	0	0	0		0
##	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##	051000		Otu11270	-	Otu11272	·	273 Otu1:	1974 (	-
	CSI002	0	0	00011271		0.000000e		0	0
##	CSI013	0	0	0	0	0.000000e		0	0
##	CSI023	0	0	0	_	0.000000c		0	0
##	CSI023	0	0	0	_	0.000000e		0	0
##	CSI045	0	0	0	0	0.000000e		0	0
##	CSI056	0	0	0	0	0.000000e		0	0
##	CSI066	0	0	0	_	0.000000e		0	0
##	001000	•	Otu11277	·	Otu11279		280 Otu1:	•	•
##	CSI002	0	0	0		0.000000e		0	0
##	CSI013	0	0	0		0.000000e		0	0
##	CSI023	0	0	0		0.000000e		0	0
##	CSI034	0	0	0		0.000000e		0	0
	CSI045	0	0	0		0.000000e		0	0
##	CSI056	0	0	0	0	3.918572e		0	0
##	CSI066	0	0	0	0	0.000000e	+00	0	0
##		Otu1	1283	Otu11284 (	Otu11285 (	Otu11286 O	tu11287	Ot	u11288
##	CSI002	0.0000006	e+00 0.000	0000e+00	0	0	0 (	0.000	000e+00
##	CSI013	6.3916146	e-05 0.000	0000e+00	0	0	0 (	0.000	000e+00
##	CSI023	0.0000006	e+00 0.000	0000e+00	0	0	0 (	0.000	000e+00
##	CSI034	0.0000006	e+00 0.000	0000e+00	0	0	0 (	0.000	000e+00
##	CSI045	0.0000006	e+00 0.000	0000e+00	0	0	0 (	0.000	000e+00
##	CSI056	0.0000006	e+00 0.000	0000e+00	0	0	0 (	0.000	000e+00
##	CSI066	0.0000006	e+00 1.91	6847e-05	0	0	0 (	0.000	000e+00
##		Otu11289	Otu11290	Otu11291	Otu11292	Otu11293	Otu11294	Otu11	L295
##	CSI002	0	0	0	0	0	0		0
##	CSI013		_						•
##		0	0	0	0	0	0		0
	CSI023	0	0	0	0	0	0		0
##	CSI023 CSI034						-		-
		0	0	0	0	0	0		0
	CSI034	0	0	0	0	0	0		0
##	CSI034 CSI045	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0		0 0 0 0
## ## ## ##	CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0tu11296	0 0 0 0 0 0 0tu11297	0 0 0 0 0 0 0 0tu11298	0 0 0 0 0 0 0 0tu11299	0 0 0 0 0 0 0 0tu11300	0 0 0 0 0 0tu11301	Otu11	0 0 0 0 0 0
## ## ## ##	CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0tu11296	0 0 0 0 0 0 0tu11297	0 0 0 0 0 0 0tu11298	0 0 0 0 0 0 0tu11299	0 0 0 0 0 0 0tu11300	0 0 0 0 0 0tu11301	Otu11	0 0 0 0 0 0 1302
## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013	0 0 0 0 0 0 0tu11296 0	0 0 0 0 0 0tu11297 0	0 0 0 0 0 0tu11298 0	0 0 0 0 0 0tu11299 0	0 0 0 0 0 0 0tu11300 0	0 0 0 0 0 0tu11301 0	Otu11	0 0 0 0 0 0 1302 0
## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023	0 0 0 0 0 0 0tu11296 0 0	0 0 0 0 0 0tu11297 0 0	0 0 0 0 0 0tu11298 0 0	0 0 0 0 0 0tu11299 0 0	0 0 0 0 0 0 0 0tu11300 0 0	0 0 0 0 0 0tu11301 0 0	Otu11	0 0 0 0 0 0 1302 0 0
## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034	0 0 0 0 0 0 0tu11296 0 0	0 0 0 0 0 0 0tu11297 0 0	0 0 0 0 0 0tu11298 0 0	0 0 0 0 0 0tu11299 0 0	0 0 0 0 0 0 0 0tu11300 0 0	0 0 0 0 0 0tu11301 0 0	Otu11	0 0 0 0 0 0 1302 0 0
## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0 0tu11296 0 0	0 0 0 0 0 0 0tu11297 0 0 0	0 0 0 0 0 0 0tu11298 0 0 0	0 0 0 0 0 0 0tu11299 0 0 0	0 0 0 0 0 0 0 0tul1300 0 0 0	0 0 0 0 0 0 0tu11301 0 0	Otu11	0 0 0 0 0 0 1302 0 0 0
## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0 0 0 0tul1296 0 0 0	0 0 0 0 0 0 0tul1297 0 0 0	0 0 0 0 0 0 0tul1298 0 0 0	0 0 0 0 0 0 0tul1299 0 0 0	0 0 0 0 0 0 0tul1300 0 0 0	0 0 0 0 0 0 0tu11301 0 0 0	Otu11	0 0 0 0 0 0 1302 0 0 0
## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0tul1296 0 0 0	0 0 0 0 0 0tul1297 0 0 0 0	0 0 0 0 0 0tul1298 0 0 0 0	0 0 0 0 0 0tul1299 0 0 0 0	0 0 0 0 0 0 0tul1300 0 0 0 0	0 0 0 0 0 0tu11301 0 0 0		0 0 0 0 0 0 1302 0 0 0
## ## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0tul1296 0 0 0 0 0 0 0 0	0 0 0 0 0 0tu11297 0 0 0 0 0 0 0	0 0 0 0 0 0tu11298 0 0 0 0 0 0 0 0	0 0 0 0 0 0tu11299 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11300 0 0 0 0 0 0 0	0 0 0 0 0 0tu11301 0 0 0 0 0 0		0 0 0 0 0 1302 0 0 0 0
## ## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11297 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1298 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11299 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1300 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11301 0 0 0 0 0 0 0tu11308		0 0 0 0 0 1302 0 0 0 0 0 0
## ## ## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1297 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1298 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1299 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11301 0 0 0 0 0 0tu11308 0		0 0 0 0 0 1302 0 0 0 0 0 0
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1297 0 0 0 0 0 0 0tul1304 0	0 0 0 0 0 0 0tu11298 0 0 0 0 0 0 0tu11305	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11301 0 0 0 0 0 0tu11308 0		0 0 0 0 0 1302 0 0 0 0 0 0
## ## ## ## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11301 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 1302 0 0 0 0 0 0 0 1309 0
## ## ## ## ## ## ## ## ## ## ##	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tul1298 0 0 0 0 0 0 0tul1305 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11301 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 1302 0 0 0 0 0 0 0 0
######################################	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI023 CSI034 CSI045	Otul1296 Otul1296 O Otul1303 O Otul1303 O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu11298 0 0 0 0 0 0tu11305 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 1302 0 0 0 0 0 0 0 0 1309 0 0
######################################	CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	Otul1296 Otul1296 O Otul1303 O Otul1303 O O O O O O O O O O O O O O O O O O	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Otu11	0 0 0 0 0 1302 0 0 0 0 0 0 0 0 1309 0 0 0

```
## CSI002
                                                                               0
## CSI013
                   0
                                                 0
                             0
                                       0
                                                           0
                                                                               0
## CSI023
                   0
                             0
                                                                               0
                                                 0
## CSI034
                   0
                             0
                                       0
                                                           0
                                                                     0
                                                                               0
## CSI045
                   0
                             0
                                                 0
                                                                               0
## CSI056
                             0
                                                 0
                                                                               0
                   0
                                       0
                             0
                                                 0
   CSI066
                                       0
                                                                               0
                                                            Otu11321 Otu11322
##
           Otu11317 Otu11318
                                    Otu11319 Otu11320
## CSI002
                   0
                             0 0.000000e+00
                                                      0 0.00000e+00
## CSI013
                                                                               Λ
                   0
                             0 0.000000e+00
                                                      0 0.00000e+00
## CSI023
                   0
                             0 0.000000e+00
                                                      0 0.000000e+00
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## CSI034
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                             0 0.000000e+00
                                                      0 0.000000e+00
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##
   CSI045
                   0
                             0 0.000000e+00
                                                      0 0.000000e+00
                                                                               0
## CSI056
                             0 1.959286e-05
                                                      0 0.00000e+00
                                                                               0
##
  CSI066
                   0
                             0 0.000000e+00
                                                      0 0.000000e+00
                                                                               0
##
           Otu11323 Otu11324 Otu11325
                                              Otu11326 Otu11327 Otu11328 Otu11329
## CSI002
                             0
                                       0 0.000000e+00
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## CSI013
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                                       0 0.000000e+00
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                                       0 0.000000e+00
## CSI023
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## CSI034
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##
  CSI045
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                                       0 0.00000e+00
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## CSI056
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                                       0 1.959286e-05
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                                       0 0.000000e+00
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##
  CST066
           Otu11330 Otu11331 Otu11332 Otu11333 Otu11334 Otu11335 Otu11336
##
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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##
           Otu11337 Otu11338 Otu11339 Otu11340 Otu11341 Otu11342 Otu11343
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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  CSI066
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##
##
               Otu11344 Otu11345 Otu11346 Otu11347 Otu11348 Otu11349 Otu11350
  CSI002 0.000000e+00
                                 0
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                                                      0
## CSI013 0.000000e+00
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   CSI023 0.000000e+00
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   CSI034 1.894908e-05
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   CSI045 0.000000e+00
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## CSI056 0.000000e+00
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##
   CSI066 0.000000e+00
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##
           Otu11351 Otu11352 Otu11353 Otu11354
                                                        Otu11355 Otu11356 Otu11357
## CSI002
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                                       0
                                                 0 0.00000e+00
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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0 0.000000e+00
## CSI066
                 0
                                                                      0
          Otu11358
##
                        Otu11359 Otu11360 Otu11361 Otu11362 Otu11363 Otu11364
## CSI002
                  0 0.000000e+00
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## CSI013
                  0 0.000000e+00
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## CSI023
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## CSI034
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## CSI045
                  0 0.00000e+00
## CSI056
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## CSI066
                  0 0.000000e+00
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##
               Otu11365 Otu11366 Otu11367 Otu11368 Otu11369 Otu11370 Otu11371
## CSI002 2.724387e-05
                                0
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
          Otu11372 Otu11373 Otu11374 Otu11375 Otu11376 Otu11377 Otu11378
## CST002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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          Otu11379 Otu11380 Otu11381
                                           Otu11382 Otu11383 Otu11384 Otu11385
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                                     0 0.00000e+00
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          Otu11386 Otu11387 Otu11388 Otu11389 Otu11390 Otu11391 Otu11392
##
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
                  Ω
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## CSI066
##
          Otu11393 Otu11394
                                  Otu11395 Otu11396 Otu11397 Otu11398 Otu11399
## CSI002
                  0
                           0 0.000000e+00
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                            0 0.000000e+00
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                           0 0.00000e+00
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##
          Otu11400 Otu11401
                                  Otu11402
                                                Otu11403 Otu11404 Otu11405
## CSI002
                  0
                           0 0.000000e+00 0.000000e+00
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## CSI013
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                           0 0.000000e+00 0.000000e+00
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## CSI023
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                           0 0.000000e+00 0.000000e+00
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## CSI034
                  0
                           0 3.789817e-05 0.000000e+00
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## CSI045
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                        0 0.000000e+00 0.000000e+00
## CST056
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                         0 0.000000e+00 0.000000e+00
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## CSI066
                0
                         0 0.000000e+00 0.000000e+00
                                                           0
         Otu11406 Otu11407 Otu11408
                                      Otu11409 Otu11410 Otu11411 Otu11412
## CSI002
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                         0
                                 0 0.000000e+00 0 0
## CSI013
                Λ
                         0
                                  0 0.000000e+00
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                                                                Λ
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## CSI023
                0
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                                  0 0.000000e+00
                         0
## CSI034
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                                 0 1.894908e-05
                                                       0
                                                                0
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## CSI045
                0
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                                 0 0.000000e+00
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                Λ
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## CSI056
                                 0 0.000000e+00
## CSI066
                0
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                                0 0.000000e+00
                                                       0
##
             Otu11413 Otu11414 Otu11415 Otu11416 Otu11417 Otu11418 Otu11419
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CST066 0.000000e+00
                                               0
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         Otu11420 Otu11421 Otu11422 Otu11423
                                                Otu11424 Otu11425 Otu11426
## CSI002
                Ω
                   0
                                 Ω
                                          0 0.000000e+00
                                                                Λ
                                                                         Λ
## CSI013
                         0
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                                          0 6.391614e-05
## CSI023
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                                          0 0.000000e+00
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## CSI034
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                                          0 0.000000e+00
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## CSI045
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## CSI056
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                                          0 0.000000e+00
## CSI066
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                                          0 0.000000e+00
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         Otu11427 Otu11428 Otu11429 Otu11430 Otu11431 Otu11432 Otu11433
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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         Otu11434
                      Otu11435 Otu11436 Otu11437 Otu11438 Otu11439 Otu11440
## CSI002
                0 0.000000e+00 0 0
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## CSI013
                0 0.000000e+00
                                      0
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## CSI023
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## CSI034
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## CSI045
                0 0.00000e+00
## CSI056
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         Otu11441 Otu11442 Otu11443 Otu11444 Otu11445 Otu11446 Otu11447
                                  0
                                          0 0.000000e+00
## CSI002
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## CSI013
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## CSI023
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                                           0 0.00000e+00
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## CSI034
                                           0 1.894908e-05
                                           0 0.000000e+00
## CSI045
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## CSI056
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                                           0 0.00000e+00
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                                           0 0.000000e+00
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         Otu11448 Otu11449 Otu11450 Otu11451 Otu11452 Otu11453 Otu11454
## CSI002
                0
                         0
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                                                 0 0.000000e+00
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## CSI013
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## CSI023
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## CST034
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  CSI045
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  CSI056
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##
##
   CST066
                   0
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                                                 0
                                                           0 0.000000e+00
                                                                                   0
           Otu11455 Otu11456 Otu11457 Otu11458 Otu11459 Otu11460
##
                                                                           Otu11461
                                                                     0 0.000000e+00
## CSI002
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## CSI013
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##
  CSI023
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##
  CSI034
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   CSI045
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##
   CSI056
                                                                     0 0.00000e+00
##
   CSI066
                   0
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                                                                     0 0.000000e+00
           Otu11462 Otu11463 Otu11464
                                             Otu11465 Otu11466 Otu11467
##
## CSI002
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                                       0 0.000000e+00
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##
   CSI013
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##
   CSI023
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   CSI034
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   CSI045
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##
                                       0 0.00000e+00
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##
   CSI056
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##
   CST066
                   Ω
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                                        0.000000e+00
                                                               Λ
                                                                         0
##
               Ot.1111468
                              Ot.1111469
                                            Ot:1111470
                                                           Otu11471 Otu11472
   CSI002 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
   CSI013 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
   CSI023 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
   CSI034 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
   CSI045 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
   CSI056 0.000000e+00 0.000000e+00 0.000000e+00 0.000000e+00
                                                                            0
                                                                            0
   CSI066 0.000000e+00 1.916847e-05 0.000000e+00 0.000000e+00
##
           Otu11473 Otu11474 Otu11475 Otu11476 Otu11477
                                                                 Otu11478 Otu11479
## CSI002
                   0
                             0
                                      0
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                                                           0 0.00000e+00
                                                                                   0
##
   CSI013
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   CSI023
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##
   CSI034
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                                                           0 0.00000e+00
   CSI045
                   0
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##
   CSI056
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                                                           0 0.000000e+00
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##
##
   CSI066
                   0
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                                                           0 0.00000e+00
                                                                                   0
##
           Otu11480
                    Otu11481 Otu11482
                                             Otu11483 Otu11484 Otu11485 Otu11486
## CSI002
                   0
                             0
                                       0 0.000000e+00
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  CSI013
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##
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                                       0 0.000000e+00
  CSI023
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                                       0 0.000000e+00
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                   0
## CSI034
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                                      0 0.00000e+00
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##
   CSI045
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                                      0 0.00000e+00
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##
   CSI056
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                                       0 0.000000e+00
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##
   CSI066
                   0
           Otu11487
                    Otu11488 Otu11489
                                         Otu11490 Otu11491 Otu11492 Otu11493
##
## CSI002
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   CSI013
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   CSI023
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##
   CSI034
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                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI045
                                                                     0
## CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                               0
## CSI066
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           Otu11494
                         Otu11495 Otu11496 Otu11497 Otu11498 Otu11499 Otu11500
```

```
## CSI002
                  0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI013
                  0 3.195807e-05
                                          0
                                                    0
                                                                                  0
                                                              0
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  CSI023
                  0 0.00000e+00
                                          0
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  CSI034
                  0 0.000000e+00
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##
   CSI045
                  0 0.000000e+00
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                  0 0.000000e+00
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##
  CSI056
                  0 0.000000e+00
                                                              0
   CSI066
                                                    0
                                                                                  0
                                                                          0tu11507
##
           Otu11501 Otu11502 Otu11503
                                             Otu11504 Otu11505
                                                                Otu11506
## CSI002
                  0
                            0
                                      0 0.00000e+00
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##
  CSI013
                  0
                                      0 0.000000e+00
  CSI023
                  0
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                                      0 0.000000e+00
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  CSI034
                  0
                            0
                                                              0
                                                                        0
##
                                        1.894908e-05
##
   CSI045
                  0
                            0
                                      0 0.000000e+00
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                                                                                  0
                            0
                                      0 0.000000e+00
                                                              0
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##
   CSI056
                  0
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##
   CSI066
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                        0
                                                                                  0
##
               Otu11508 Otu11509 Otu11510
                                                 Otu11511 Otu11512 Otu11513
   CSI002 0.000000e+00
                                0
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##
                                          0 0.00000e+00
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   CSI013 0.000000e+00
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                                          0 0.00000e+00
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   CSI023 0.000000e+00
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                                          0 0.00000e+00
   CSI034 3.789817e-05
                                0
                                          0 0.00000e+00
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   CSI045 0.000000e+00
                                0
                                          0 0.00000e+00
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   CSI056 0.000000e+00
                                0
                                          0 0.000000e+00
                                                                   0
  CSI066 0.000000e+00
                                0
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##
                                          0 0.00000e+00
                                                                             0
               Otu11514 Otu11515 Otu11516 Otu11517 Otu11518
                                                                     Otu11519
## CSI002 1.362194e-05
                                0
                                          0
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                                                              0 1.362194e-05
   CSI013 0.000000e+00
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   CSI023 0.000000e+00
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   CSI034 0.000000e+00
                                                              0 0.00000e+00
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                                          0
   CSI045 0.000000e+00
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                                                              0 0.000000e+00
   CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0 0.00000e+00
##
   CSI066 0.000000e+00
                                          0
                                                    0
                                                              0 0.00000e+00
##
           Otu11520 Otu11521
                                   Otu11522 Otu11523
                                                           Otu11524 Otu11525
## CSI002
                  0
                            0 0.00000e+00
                                                    0 2.724387e-05
                                                                             0
## CSI013
                            0 3.195807e-05
                                                    0 0.000000e+00
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                  0
  CSI023
                  0
                              0.000000e+00
                                                    0 0.00000e+00
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  CSI034
                  0
                            0 0.000000e+00
                                                    0 0.00000e+00
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##
##
  CSI045
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                            0 0.000000e+00
                                                    0 0.00000e+00
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## CSI056
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                            0 0.000000e+00
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                              0.000000e+00
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##
   CSI066
                            0
##
           Otu11526 Otu11527
                              Otu11528 Otu11529
                                                      Otu11530 Otu11531 Otu11532
                                                0 0.000000e+00
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## CSI002
                  0
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## CSI013
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## CSI023
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##
  CSI034
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## CSI045
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## CSI056
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##
  CSI066
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                                                0 0.00000e+00
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##
           Otu11533 Otu11534
                              Otu11535 Otu11536 Otu11537 Otu11538 Otu11539
## CSI002
                  0
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## CSI013
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  CSI023
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##
## CSI034
                  0
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## CSI045
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## CSI056
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```

##	CSI066	0	0	0		0		0		0		0	
##		Otu11540	Otu11541	Otu1	1542 (	Otu11	L543	Otu11	.544	Otu11	545	Otu11	546
##	CSI002	0	0	0.000000	e+00		0		0		0		0
##	CSI013	0	0	0.0000006	e+00		0		0		0		0
##	CSI023	0	0	0.0000006	e+00		0		0		0		0
##	CSI034	0	0	0.0000006	e+00		0		0		0		0
##	CSI045	0	0	0.0000006	e+00		0		0		0		0
##	CSI056	0					0		0		0		0
##	CSI066	0		0.0000006			0		0		0		0
##			Otu11548		Otu1		Otu1		Otu1		Otu1		
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045 CSI056	0	0	0		0		0		0		0	
##	CS1056	0	0	0		0		0		0		0	
##	CDICCO	•	Otu11555	•	Ω±111	-	<b>Ω</b> ±111	-	Ω±111	-	<b>Ω</b> ±111	.1560	
##	CSI002	0	0	0	ocur.	0	ocui	0	ocui	0	ouu	0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##		Otu11561	Otu11562	Otu11563	Otu1	1564	Otu1	1565	Otu1	1566	Otu1	1567	
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0 44570	0. 4.	0		0	F70	0	<b>-70</b>	0	- <del></del> 4
##	CCTOOO		Otu11569		Utul					Utull		Otu11!	_
##	CSI002 CSI013	0	0	0		0		0000e			0		0
	CSI013	0	0	0		0		0000e			0		0
	CSI023	0	0	0		-		0000e			0		0
	CSI045	0	0	0				0000e			0		0
	CSI056	0	0	0				9286			0		0
	CSI066	0	0	0				0000e			0		0
##		Otu11575	Otu11	.576 Otu1:	1577	Otu11	L578	Otu11	579	Otu11	580	Otu11	581
##	CSI002	0	2.724387e	e-05	0		0		0		0		0
##	CSI013	0	0.000000e	+00	0		0		0		0		0
##	CSI023	0	0.000000e	+00	0		0		0		0		0
	CSI034		0.0000006		0		0		0		0		0
##	CSI045		0.000000e		0		0		0		0		0
##	CSI056		0.000000e		0		0		0		0		0
##	CSI066		0.0000006		0		0		0		0		0
##	~~		Otu11583		Otu1		Otu1		Otu1		Otu1		
##		0	0	0		0		0		0		0	
	CSI013	0	0	0		0		0		0		0	
	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	

```
## CSI045
                  0
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## CSI056
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## CSI066
                  0
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##
          Otu11589 Otu11590 Otu11591 Otu11592 Otu11593 Otu11594 Otu11595
## CST002
                  0
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                                     0
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                                                                            0
## CSI013
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## CSI023
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## CSI034
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  CSI045
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## CSI056
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   CSI066
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          Otu11596 Otu11597 Otu11598
##
                                            Otu11599 Otu11600
                                                                   Otu11601
## CSI002
                  0
                           0
                                     0 1.362194e-05
                                                             0 0.000000e+00
## CSI013
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                  0
                                     0 0.00000e+00
                                                             0 0.00000e+00
## CSI023
                  0
                           0
                                     0 2.041025e-05
                                                             0 0.000000e+00
## CSI034
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                                     0 0.000000e+00
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                                     0 0.000000e+00
## CSI045
                                                             0 0.00000e+00
## CSI056
                  0
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                                     0 0.00000e+00
                                                             0 0.00000e+00
                                     0 0.000000e+00
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##
   CST066
                                                             0.0.000000e+00
          Otu11602 Otu11603 Otu11604 Otu11605
                                                     Otu11606 Otu11607
                                               0 0.000000e+00
## CSI002
                  Λ
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                                     Ω
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## CSI013
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                                               0 0.000000e+00
## CSI023
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## CSI034
                                               0 0.000000e+00
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## CST045
                                               0 6.530186e-05
  CSI056
                  0
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                                               0 0.000000e+00
##
   CSI066
                  0
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                                               0 0.000000e+00
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              Otu11608 Otu11609 Otu11610 Otu11611
                                                         Otu11612 Otu11613
  CSI002 0.000000e+00
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                                                   0 0.000000e+00
  CSI013 0.000000e+00
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## CSI023 0.000000e+00
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   CSI034 0.000000e+00
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   CSI045 0.000000e+00
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  CSI056 0.000000e+00
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   CSI066 3.833694e-05
                                0
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          Otu11614 Otu11615 Otu11616 Otu11617 Otu11618 Otu11619
##
                                                                         Ot:1111620
## CSI002
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## CSI013
                  Λ
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## CSI023
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## CSI034
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  CSI045
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                                                                  0 0.00000e+00
##
  CST056
                           0
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##
   CSI066
                  0
                                     0
                                                                  0 1.916847e-05
               Otu11621 Otu11622 Otu11623 Otu11624 Otu11625 Otu11626 Otu11627
##
  CSI002 0.000000e+00
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## CSI013 0.000000e+00
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   CSI023 0.000000e+00
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  CSI034 0.000000e+00
  CSI045 0.000000e+00
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## CSI056 0.000000e+00
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   CSI066 0.000000e+00
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##
          Otu11628 Otu11629
                                  Otu11630 Otu11631 Otu11632 Otu11633 Otu11634
## CSI002
                           0 0.000000e+00
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## CSI013
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## CSI023
                             0 0.00000e+00
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## CSI034
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## CSI045
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## CSI056
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##
   CSI066
                             0 0.000000e+00
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##
               Otu11635 Otu11636 Otu11637 Otu11638 Otu11639 Otu11640 Otu11641
## CSI002 2.724387e-05
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## CSI013 0.000000e+00
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   CSI023 0.000000e+00
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  CSI034 0.000000e+00
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   CSI045 0.000000e+00
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## CSI056 0.000000e+00
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   CSI066 0.000000e+00
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                                              Otu11645 Otu11646 Otu11647 Otu11648
##
           Otu11642 Otu11643 Otu11644
## CSI002
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                                       0 0.000000e+00
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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##
   CST066
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                                       0 0.000000e+00
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##
           Otu11649 Otu11650 Otu11651 Otu11652 Otu11653 Otu11654 Otu11655
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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  CSI056
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   CSI066
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##
           Otu11656 Otu11657 Otu11658 Otu11659 Otu11660 Otu11661
##
## CSI002
                   0
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##
  CSI013
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  CSI023
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## CSI034
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## CSI045
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  CSI056
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##
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##
   CSI066
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##
               Otu11663 Otu11664 Otu11665 Otu11666 Otu11667 Otu11668 Otu11669
## CSI002 0.000000e+00
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   CSI013 0.000000e+00
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   CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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  CSI066 0.000000e+00
           Otu11670 Otu11671 Otu11672 Otu11673 Otu11674 Otu11675 Otu11676
##
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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##
           Otu11677 Otu11678 Otu11679 Otu11680 Otu11681 Otu11682
                                                                             0tu11683
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## CSI002
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                                                                      0 0.00000e+00
## CSI013
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## CSI023
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  CSI034
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  CSI045
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##
  CSI056
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##
   CSI066
##
           Otu11684
                     Otu11685
                               Otu11686 Otu11687
                                                        Otu11688 Otu11689 Otu11690
## CSI002
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  CSI013
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## CSI023
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## CSI034
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   CSI066
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##
           Otu11691
                     Otu11692
                               Otu11693 Otu11694
                                                        Otu11695 Otu11696
## CSI002
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##
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   CSI056
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  CSI066
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##
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               Otu11697 Otu11698 Otu11699 Otu11700 Otu11701 Otu11702 Otu11703
##
  CSI002 0.000000e+00
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   CSI013 0.000000e+00
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   CSI023 0.000000e+00
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   CSI034 0.000000e+00
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   CSI045 0.000000e+00
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   CSI056 0.000000e+00
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##
   CSI066 0.000000e+00
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##
           Otu11704 Otu11705 Otu11706 Otu11707 Otu11708 Otu11709 Otu11710
## CSI002
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## CSI013
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  CSI023
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## CSI034
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## CSI045
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##
   CSI066
##
           Otu11711 Otu11712 Otu11713 Otu11714 Otu11715 Otu11716 Otu11717
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## CSI002
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## CSI013
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## CSI056
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##
   CSI066
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##
               Otu11718 Otu11719 Otu11720 Otu11721
                                                            Otu11722 Otu11723
   CSI002 0.000000e+00
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   CSI013 0.000000e+00
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   CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
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##
          Otu11724 Otu11725 Otu11726 Otu11727 Otu11728
                                                               Otu11729
                                                        0 0.00000e+00
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI066
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                                                         Otu11734 Otu11735
##
               Otu11730 Otu11731 Otu11732 Otu11733
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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## CSI045 3.265093e-05
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## CSI056 0.000000e+00
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  CSI066 1.916847e-05
                                                   0 0.00000e+00
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##
          Otu11736 Otu11737 Otu11738 Otu11739
                                                     Otu11740 Otu11741
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                                               0 0.00000e+00
## CSI066
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                                               0 0.00000e+00
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               Otu11742 Otu11743 Otu11744 Otu11745 Otu11746 Otu11747 Otu11748
## CSI002 0.000000e+00
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  CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 0.000000e+00
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  CSI045 0.000000e+00
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   CSI056 0.000000e+00
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   CSI066 0.000000e+00
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                        Otu11750 Otu11751 Otu11752 Otu11753
##
          0tu11749
                                                                   Otu11754
## CSI002
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## CSI013
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                  0 0.00000e+00
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## CSI023
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## CSI034
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## CSI045
                  0 0.000000e+00
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## CSI056
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                                                             0.0.000000e+00
                  0 3.833694e-05
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   CSI066
                                                             0 3.833694e-05
          Otu11755 Otu11756 Otu11757 Otu11758
                                                     Otu11759 Otu11760
##
                                               0 0.00000e+00
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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##
   CSI066
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##
               Otu11761 Otu11762 Otu11763 Otu11764 Otu11765 Otu11766
                                                                        Otu11767
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 3.789817e-05
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```

		0.0000006		0	0	0	0		0	0
##		0.0000006		0	0	0	0		0	0
##	CS1066	0.0000006		0	0	0	0	1770	0	0
##	CSI002	0	0	Otu11770	0		2 Utul )	0	Utull/74 (	
##	CSI002	0	0	0	0		)	0	(	
##	CSI013	0	0	0	0		)	0	(	
##	CSI023	0	0	0	0		)	0		
##	CSI045	0	0	0	0		)	0		
##	CSI056	0	0	0	0		)	0	(	
##	CSI066	0	0	0	0		)	0	(	
##		Otu11775	Otu11776	Otu11777	Otu11778	Otu1177	9 Otu1	1780	0tu11781	L
##	CSI002	0	0	0	0		)	0	(	)
##	CSI013	0	0	0	0		)	0	(	)
##	CSI023	0	0	0	0		)	0	(	)
##	CSI034	0	0	0	0		)	0	(	)
##	CSI045	0	0	0	0	(	)	0	(	)
##	CSI056	0	0	0	0		)	0	(	)
##	CSI066	0	0	0	0	(	)	0	(	)
##		Otu11782	Otu11783	Otu11784	Otu11785	Otu1178	otu1	1787	Otu11788	3
##	CSI002	0	0	0	0	(	)	0	(	)
##	CSI013	0	0	0	0	(	)	0	(	)
	CSI023	0	0	0	0		)	0	(	
	CSI034	0	0	0	0		)	0	(	
	CSI045	0	0	0	0		)	0	(	
	CSI056	0	0	0	0		)	0	(	
##	CSI066	0	0	0	0		) )	0	0+1170	
##	CSI002			Otu11791			3 Utul )			
##	CS1002	0	0	0	0		)	0	(	
	CSI013	0	0	0	0		)	0	(	
##	CSI023	0	0	0	0		)	0	(	
	CSI045	0	0	0	0		)	0	(	
##	CSI056	0	0	0	0		)	0	(	
##	CSI066	0	0	0	0		)	0	(	
##		Otu11796	Otu11797	Otu11798	Otu11799	Otu1180	Otu1	1801	Otu1	1802
##	CSI002	0	0	0	0		)	0	0.000000	e+00
##	CSI013	0	0	0	0		)	0	0.000000	e+00
##	CSI023	0	0	0	0	(	)	0	0.000000	e+00
##	CSI034	0	0	0	0		)	0	3.789817	'e-05
##	CSI045	0	0	0	0	(	)	0	0.000000	e+00
##	CSI056	0	0	0	0	(	)		0.000000	
##	CSI066	0	0	0	0		)		0.000000	
##				1804 Otu1				Otu11		
##		0.0000006		0	0	0	0		0	0
		0.0000006		0	0	0	0		0	0
##		0.0000006		0	0	0	0		0	0
		1.8949086		0	0	0	0		0	0
##		0.0000006		0 0	0	0	0		0	0
##		0.0000006		0	0 0	0	0		0	0
##	CDIOOO	Otu11810		-	0 1812 Otu1	-	-	<u> </u>	-	•
##	CSI002	0 0 0		0.000000		0	0	Jours	015 0641	0
II'TT	351002	U		3.00000	J - UU	•	J		•	0
##	CSI013	0	Λ	0.000000	e+00	0	0		0	0

##	CSI023	0	0	0.00	00000e+00	)	0		0		0		0
##	CSI034	0	0	1.89	94908e-05	•	0		0		0		0
##	CSI045	0	0	0.00	00000e+00	)	0		0		0		0
##	CSI056	0	0	0.00	00000e+00	)	0		0		0		0
##	CSI066	0	0	0.00	00000e+00	)	0		0		0		0
##		Otu11817	Otu11818	Otu:	11819 Oti	11820	Otu:	11821	Otu:	11822	Otu:	11823	
##	CSI002	0	0		0	0		0		0		0	
##	CSI013	0	0		0	0		0		0		0	
##	CSI023	0	0		0	0		0		0		0	
##	CSI034	0	0		0	0		0		0		0	
##	CSI045	0	0		0	0		0		0		0	
##	CSI056	0	0		0	0		0		0		0	
##	CSI066	0	0		0	0		0		0		0	
##		Otu11824	Otu11825	Otu:	11826 Oti	11827	Otu:	11828	Otu	11829	Otu:	11830	
##	CSI002	0	0		0	0		0		0		0	
##	CSI013	0	0		0	0		0		0		0	
##	CSI023	0	0		0	0		0		0		0	
##	CSI034	0	0		0	0		0		0		0	
	CSI045	0	0		0	0		0		0		0	
	CSI056	0	0		0	0		0		0		0	
##	CSI066	0	0		0	0		0		0		0	
##	aa tooo		Otu11832		Otu11833			Utu11		Utu11		Utu11	
	CSI002	0			00000e+00		0		0		0		0
	CSI013	0			00000e+00		0		0		0		0
	CSI023	0			00000e+00		0		0		0		0
	CSI034 CSI045	0			94908e-05 00000e+00		0		0		0		0
	CSI045	0			00000e+00		0		0		0		0
##	CSI066	0			00000e+00		0		0		0		0
##	ODIOOO	-	Otu11839				_	11842	•	11843	•	11844	Ü
	CSI002	0	0	ocu.	0	0	ocu.	0	o cu.	0	ovu.	0	
##	CSI013	0	0		0	0		0		0		0	
	CSI023	0	0		0	0		0		0		0	
	CSI034	0	0		0	0		0		0		0	
##	CSI045	0	0		0	0		0		0		0	
##	CSI056	0	0		0	0		0		0		0	
##	CSI066	0	0		0	0		0		0		0	
##		Otu1	1845 Otu1:	1846	Otu11847	Otu1	1848	Otu11	849	Otu11	1850	Otu11	851
##	CSI002	0.000000	e+00	0	C	)	0		0		0		0
		0.0000006		0	C	)	0		0		0		0
		0.000000		0	C	)	0		0		0		0
		3.789817		0	C	)	0		0		0		0
		0.000000		0	(		0		0		0		0
		0.000000		0	C		0		0		0		0
##	CSI066	0.000000		0	C		0		0		0		0
##		Otu11852			Otu11854			Otu11		Otu11		Otu11	
	CSI002		0.0000006		(		0		0		0		0
	CSI013		0.0000006		(		0		0		0		0
	CSI023		0.0000006		(		0		0		0		0
	CSI034		3.7898176		(		0		0		0		0
	CSI045		0.0000006		(		0		0		0		0
##	CSI056 CSI066		0.000000		(		0		0		0		0
##	CDIOOO		Otu11860	5 1 00	Otu11861			1862 C	-	1863 (	-	1864	U
##		00411009	00411000		0.011001	. '	Juu1.	.∪∪∠ L	, ull.	.000 (	oul.	1004	

```
## CSI002
                            0 0.000000e+00 0.000000e+00
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## CSI013
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                            0 0.000000e+00 0.000000e+00
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## CSI023
                  0
                            0 0.000000e+00 0.000000e+00
                                                                   0
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                              0.000000e+00 1.894908e-05
  CSI034
                  0
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##
##
   CSI045
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                              0.000000e+00 0.000000e+00
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  CSI056
                            0 0.000000e+00 0.000000e+00
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##
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                            0 0.000000e+00 0.000000e+00
   CSI066
               Otu11865 Otu11866 Otu11867 Otu11868
##
                                                           Otu11869 Otu11870
   CSI002 0.000000e+00
                                 0
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                                                     0 0.00000e+00
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                                           0
   CSI013 0.000000e+00
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   CSI023 0.000000e+00
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  CSI034 0.000000e+00
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   CSI045 0.000000e+00
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   CSI056 3.918572e-05
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   CSI066 0.000000e+00
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                                                     0 0.000000e+00
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##
           Otu11871 Otu11872 Otu11873 Otu11874 Otu11875 Otu11876 Otu11877
## CSI002
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## CSI013
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                                                          0
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## CSI023
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## CSI034
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## CSI045
                  0
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## CSI056
                            0
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## CSI066
                                                                    0
                  Λ
                            0
                                      0
                                                          0
                                                                              0
##
           Otu11878
                         Otu11879 Otu11880
                                                 Otu11881 Otu11882 Otu11883
## CSI002
                  0 0.00000e+00
                                           0 0.000000e+00
                                                                   0
                                                                             0
## CSI013
                  0 0.000000e+00
                                           0 0.00000e+00
                                                                   0
                                                                             0
## CSI023
                  0 0.000000e+00
                                           0 2.041025e-05
                                                                   0
                                                                             0
                                                                   0
##
  CSI034
                  0 0.00000e+00
                                           0 0.00000e+00
                                                                             0
                                                                   0
## CSI045
                  0 0.000000e+00
                                           0 0.000000e+00
                                                                             0
## CSI056
                  0 0.00000e+00
                                           0 0.00000e+00
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                                                                             0
## CSI066
                  0 0.00000e+00
                                           0 0.000000e+00
                                                                   0
                                                                             0
##
           Otu11884 Otu11885 Otu11886 Otu11887
                                                       Otu11888 Otu11889 Otu11890
## CSI002
                  0
                            0
                                      0
                                                0 0.00000e+00
                                                                         0
                                                                                   0
## CSI013
                                                0 0.000000e+00
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                  0
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## CSI023
                  0
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                                                0 0.00000e+00
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## CSI034
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                                                0 0.00000e+00
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## CSI045
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## CSI056
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                                                0 0.00000e+00
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                            0
                                      0
                                                0 0.000000e+00
                                                                         0
##
  CSI066
##
           Otu11891 Otu11892 Otu11893 Otu11894 Otu11895 Otu11896 Otu11897
                            0
## CSI002
                  0
                                      0
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## CSI013
                  0
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                                      0
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##
  CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
##
           Otu11898 Otu11899 Otu11900 Otu11901 Otu11902 Otu11903
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI013
                  0
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## CSI023
                  0
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## CSI034
                  0
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## CSI045
                  0
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                                      0
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                                                                              0
## CSI056
                  0
                            0
                                      0
                                                0
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```

```
## CSI002 0 0.000000e+00 0 0 0 2.724387e-05
## CSI013
              0 0.000000e+00
                                0
                                       0
                                               0 0.000000e+00
## CSI023
              0 0.000000e+00
                                0
                                       0
                                               0 0.000000e+00
                                      0
## CSI034
              0 3.789817e-05
                               0
                                               0 0.000000e+00
                               0
                                      0
## CSI045
              0 0.000000e+00
                                               0 0.000000e+00
                               0
                                       0
## CSI056
              0 0.00000e+00
                                               0 0.000000e+00
## CSI066
              0 0.000000e+00
                                               0 0.000000e+00
        Otu11911 Otu11912 Otu11913 Otu11914 Otu11915 Otu11916 Otu11917
              0 0 0 1.362194e-05
## CSI013
              0
                     0
                             0
                                    0 0.000000e+00
                                                       0
                                                              0
                    0
## CSI023
              0
                            0
                                    0 0.000000e+00
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                           0
## CSI034
              0
                    0
                                    0 0.000000e+00
## CSI045
              0
                    0
                           0
                                    0 0.000000e+00
                                                       0
## CSI056
              0
                     0
                             0
                                    0 0.000000e+00
                                                       0
              0
                    0
                             0
                                    0 0.000000e+00
                                                      0
## CST066
        Otu11918 Otu11919 Otu11920 Otu11921 Otu11922 Otu11923 Otu11924
          0 0 0 0
                                          0 0.000000e+00
## CST002
                                                              0
## CSI013
              0
                     0
                             0
                                    0
                                           0 0.000000e+00
                                                              0
## CSI023
              Ω
                    0
                            0
                                    0
                                           0 0.000000e+00
                                                              Λ
## CSI034
              0
                    0
                           0
                                    0
                                           0 3.789817e-05
## CSI045
              0
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                                    0
                                           0 0.000000e+00
              0
                     0
                             0
                                    0
## CSI056
                                           0 0.000000e+00
                     0
                             0
                                    0
## CST066
              0
                                            0 0.000000e+00
  Otu11925 Otu11926 Otu11927 Otu11928 Otu11929 Otu11930 Otu11931
## CSI002
         0 0 0 0 0 0 0.000000e+00
## CSI013
                    0
                                    0
              0
                             0
                                            0
                                                   0 0.000000e+00
                    0
                           0
                                   0
## CSI023
              0
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                                                  0 0.000000e+00
## CSI034
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                           0
                                   0
                                          0
                                                  0 3.789817e-05
                            0
                                   0
## CSI045
              0
                    0
                                           0
                                                   0 0.000000e+00
                                   0
## CSI056
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                                                  0 0.000000e+00
             0
                    0
                            0
                                   0
                                           0
                                                   0 0.00000e+00
          Otu11932 Otu11933 Otu11934 Otu11935 Otu11936 Otu11937
## CSI002 0.000000e+00 0 0.000000e+00 0
## CSI045 0.000000e+00 0
## CSI045 0.000000e+00 0
## CSI045 0.000000e+00 0
## CSI056 0.000000e+00
                              0 0.000000e+00
                                                  0
                                                          0
                              0 0.000000e+00
                                                  0
                              0 1.894908e-05
                                                  Ω
                                                          0
                                0 0.000000e+00
                                                  0
... CSI000 U.UUUU00e+00
## CSI066 0.000000e+00
## CSI056 0.000000e+00
                        0
                               0 0.000000e+00
                                                  Ω
                        0
                               0 0.000000e+00
    Otu11938 Otu11939 Otu11940
                                 Otu11941 Otu11942 Otu11943 Otu11944
         0 0 0.000000e+00 0 0
## CSI002
              0
                    0
                                               0
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                                                              0
## CSI013
                             0 0.000000e+00
                    0
                                               0
## CSI023
              0
                           0 0.000000e+00
## CSI034
                    0
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                            0 0.000000e+00
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## CSI045
              0
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                            0 0.000000e+00
                                               0
                                                       Ω
              0
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                                               0
## CSI056
                            0 0.000000e+00
             0
                     0
                            0 0.000000e+00
                                               0
                                                      0
        Otu11945 Otu11946 Otu11947 Otu11948 Otu11949 Otu11950 Otu11951
## CSI002
              0
                0
                            0
                                    0
                                            0
                                                   0
                                                           0
              0
                    0
                             0
                                    0
                                            0
                                                   0
## CSI013
                                                           0
## CSI023
              0
                    0
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                                           Ο
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                                                           0
                   0
## CSI034
              0
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```

```
## CSI045
                  0
                           0
                                     0
                                              0
                                                        0
## CST056
                  0
                           0
                                              0
                                                        0
                                     0
                                                                           0
## CSI066
                  0
                           0
                                     0
                                              0
                                                        0
##
          Otu11952
                        Otu11953 Otu11954 Otu11955
                                                       Otu11956 Otu11957
## CST002
                  0 0.000000e+00
                                        0
                                                   0 1.362194e-05
## CSI013
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                                                           0
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
## CSI023
                                         0
## CSI034
                  0 0.000000e+00
                                                   0 0.000000e+00
                                                                           0
  CSI045
                  0 0.000000e+00
                                         0
                                                   0 0.000000e+00
                  0 3.918572e-05
                                         0
                                                                           Λ
## CSI056
                                                   0 0.00000e+00
   CSI066
                  0 0.000000e+00
                                         0
                                                   0 0.00000e+00
##
              Otu11958 Otu11959
                                      Otu11960
                                                    Otu11961 Otu11962 Otu11963
                               0 0.000000e+00 0.000000e+00
## CSI002 0.000000e+00
                                                                     0
                                                                     0
## CSI013 0.000000e+00
                               0 0.000000e+00 0.000000e+00
## CSI023 0.000000e+00
                              0 0.000000e+00 0.000000e+00
                                                                               0
## CSI034 3.789817e-05
                               0 0.000000e+00 0.000000e+00
                                                                     0
  CSI045 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                                                                               0
   CSI056 0.000000e+00
                               0 0.000000e+00 0.000000e+00
                                                                     0
                               0 0.000000e+00 0.000000e+00
  CSI066 0.000000e+00
                                                                     0
          Otu11964 Otu11965 Otu11966 Otu11967 Otu11968 Otu11969
                                                                        Otu11970
## CSI002
                  Λ
                           0
                                     Ω
                                              Λ
                                                        Λ
                                                                  0 0.00000e+00
## CSI013
                           0
                                     0
                                               0
                                                        0
                                                                  0 0.000000e+00
## CSI023
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                  0
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                                               0
                                                                  0.000000e+00
## CSI034
                  0
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                                                                  0 0.00000e+00
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## CSI045
                  0
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## CSI056
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                                     0
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                                                        0
                                                                  0 0.00000e+00
## CSI066
                  0
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                                     0
                                               0
                                                        0
                                                                  0 0.00000e+00
          Otu11971 Otu11972 Otu11973 Otu11974 Otu11975 Otu11976 Otu11977
## CSI002
                  0
                           0
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## CSI013
                  0
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                                               0
                                                        0
                                                                  0
##
          Otu11978 Otu11979 Otu11980 Otu11981 Otu11982 Otu11983 Otu11984
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
## CSI013
                  Λ
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI023
                  0
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                                               0
                                                        0
                                                                           0
                  Λ
                           0
                                     0
                                               0
                                                        Λ
                                                                  0
## CST034
                                                                           0
                           0
## CSI045
## CSI056
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
                                               0
  CST066
                  0
                           0
                                     0
                                                        0
                                                                  0
                                                                           0
          Otu11985 Otu11986 Otu11987 Otu11988 Otu11989 Otu11990 Otu11991
##
                                                        0
## CSI002
                  0
                           0
                                     0
                                               0
                                                                  0
## CSI013
                  0
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                                     0
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## CSI023
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                                               0
## CSI034
                                     0
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## CSI045
                  0
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## CSI056
                  0
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                                               0
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                                                                  0
                  0
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          Otu11992 Otu11993 Otu11994 Otu11995 Otu11996 Otu11997 Otu11998
## CSI002
                  0
                           0
                                     0
                                               0
                                                        0
                                                                  0
                                                                           0
## CSI013
                  0
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```

##	CSI023	0	0	0		0	(	) 0	0	
##	CSI034	0	0	0	0		(		0	
##	CSI045	0	0	0		0	(		0	
##	CSI056	0	0	0		0	(		_	
##	CSI066	0	0	0	0. 404	0	(	-	·	
##	~~~~		Otu12000	Otu12001	Utu120		Otu12003		0tu12005	
##	CSI002	0	0	0		0	(			
##	CSI013	0	0	0		0	(			
##	CSI023	0	0	0		0	(		0	
##	CSI034	0	0	0		0	(	_	0	
##	CSI045	0	0	0		0	(	_	0	
##	CSI056	0	0	0		0	(	-	0	
##	CSI066	0	0	0		0	(		·	
##			Otu12007	Otu12008	Otu120		Otu12010		Otu12012	
##	CSI002	0	0	0		0	(			
##	CSI013	0	0	0		0	(		0	
##	CSI023	0	0	0		0	(		0	
##	CSI034	0	0	0		0	(	_	0	
	CSI045	0	0	0		0	(	_		
##	CSI056	0	0	0		0	(	-		
##	CSI066	0	0	0		0	(		·	
##				Otu12015	Otu120			7 Otu12018		
	CSI002	0	0	0		0	(			
	CSI013	0	0	0		0	(	-	_	
	CSI023	0	0	0		0	(	_	0	
##	CSI034	0	0	0		0	(	_		
##	CSI045	0	0	0		0	(	_		
##	CSI056	0	0	0		0	(	-		
##	CSI066	0	0	0		0	(	,	·	
##	~~~~		Otu12021	Otu12022	0tu120		Otu12024			
##	CSI002	0	0	0		0	(			
##	CSI013	0	0	0		0	(	_	_	
##	CSI023	0	0	0		0	(	_		
##	CSI034	0	0	0		0	(	_	0	
##	CSI045	0	0	0		0	(	_	0	
##	CSI056	0	0	0		0	(	-	0	
	CSI066	0	0	0	0. 400	0	()	_	-	
##	aa tooo				Utu120				Otu12033	
	CSI002	0	0	0		0	(			
	CSI013	0	0	0		0	(			
	CSI023	0	0	0		0	(			
	CSI034	0	0	0		0	(			
	CSI045	0	0	0		0	(			
	CSI056	0	0	0		0	(		-	
	CSI066	0	0	0	2026	0	)	_	-	
##	aa tooo		Otu12035	Otu12				Otu12038	_	
	CSI002	0		0.0000006				0	0	
	CSI013	0				0.000000e+00 0.000000e+00		0	0	
	CSI023	0				0 0.000000e+00 0 1.894908e-05		0	0	
	CSI034	0						0	0	
	CSI045	0		0.0000006				0	0	
	CSI056	0						0	0	
	CSI066	-		0.000000				_	_	
##		Otu12040	Utuli	2041 Otu12	2042	ι	JUU12043	Otu12044	Utu12045	

```
## CSI002
                   0 0.00000e+00
                                            0 0.00000e+00
                                                                     0
                                                                               0
  CSI013
                   0 0.000000e+00
                                            0 0.00000e+00
                                                                     0
                                                                               0
## CSI023
                   0 0.00000e+00
                                            0 0.00000e+00
                                                                     0
                                                                               0
                                                                     0
  CSI034
                   0 0.000000e+00
                                            0 0.000000e+00
                                                                               0
##
   CSI045
                   0 0.000000e+00
                                            0 0.000000e+00
                                                                     0
                                                                               0
   CSI056
                   0 0.000000e+00
                                            0 0.000000e+00
                                                                     0
                                                                               0
##
                   0 1.916847e-05
                                            0 0.00000e+00
                                                                     0
   CSI066
                                                                               0
                     Otu12047 Otu12048 Otu12049 Otu12050 Otu12051
                                                                             0tu12052
##
           0tu12046
## CSI002
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
  CSI013
                   0
                             0
                                       0
                                                  0
                                                            0
##
                                                                      0 0.000000e+00
## CSI023
                   0
                             0
                                       0
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                                                            0
                                                                      0 0.000000e+00
                                                            0
## CSI034
                   0
                             0
                                       0
                                                  0
                                                                      0 0.000000e+00
                                                  0
##
   CSI045
                   0
                             0
                                       0
                                                            0
                                                                      0 0.000000e+00
  CSI056
                   0
                             0
                                                  0
                                                            0
##
                                       0
                                                                      0 0.00000e+00
##
   CSI066
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
##
           Otu12053
                     0tu12054
                               Otu12055 Otu12056 Otu12057 Otu12058
                                                                             Otu12059
## CSI002
                             0
                                                            0
                                                                      0 0.000000e+00
                   0
                                       0
                                                  0
##
  CSI013
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
## CSI023
                   0
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                                                            0
                                                                      0 0.000000e+00
                                       0
## CSI034
                   0
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                                                                      0 0.00000e+00
##
  CSI045
                   0
                             0
                                       0
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                                                            0
                                                                      0 0.000000e+00
## CSI056
                   0
                             0
                                                  0
                                                                      0 0.000000e+00
  CSI066
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
##
           Otu12060
                          Otu12061 Otu12062 Otu12063 Otu12064 Otu12065 Otu12066
##
## CSI002
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI013
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
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                                                                                     0
## CSI023
                   0 0.00000e+00
                                            0
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   CSI034
                   0 0.000000e+00
                                            0
                                                      0
                                                                0
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                                                                                     0
                                            0
                                                      0
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                                                                                     0
   CSI045
                   0 0.000000e+00
                                                                           0
##
  CSI056
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
                                                                           0
                                                                                     0
##
   CSI066
                   0 0.00000e+00
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
##
           Otu12067 Otu12068 Otu12069 Otu12070 Otu12071 Otu12072 Otu12073
## CSI002
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI013
                   0
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## CSI023
                   0
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## CSI034
                   0
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                                       0
## CSI045
                   0
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                                                            0
                                                                      0
                                                                                0
## CSI056
                   Λ
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   CSI066
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
##
           0tu12074
                     Otu12075
                               Otu12076 Otu12077 Otu12078 Otu12079
                                                                        0t_{11}12080
                             0
                                       0
                                                                                0
## CSI002
                   0
                                                  0
                                                            0
                                                                      0
## CSI013
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
## CSI023
                             0
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                                                                      0
                   0
                                       0
                                                            0
                                                                                0
                   0
                             0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
  CSI034
                                       0
## CSI045
                   0
                             0
                                                  0
                                                            0
                                                                      0
                                                                                0
                                       0
## CSI056
                                                                      0
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                             0
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                                                            0
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##
   CSI066
                   0
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                                       0
                                                  0
                                                            0
                                                                      0
                                                                                0
##
           Otu12081
                     Otu12082
                               Otu12083 Otu12084
                                                    Otu12085 Otu12086
                                                                             0tu12087
## CSI002
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
## CSI013
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
  CSI023
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
##
                             0
                                                  0
## CSI034
                   0
                                       0
                                                            0
                                                                      0 0.000000e+00
## CSI045
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.000000e+00
## CSI056
                   0
                             0
                                       0
                                                  0
                                                            0
                                                                      0 0.00000e+00
```

```
## CSI066
                                     0
                                               0
                                                        0
                                                                  0 3.833694e-05
##
               Otu12088 Otu12089 Otu12090 Otu12091 Otu12092 Otu12093 Otu12094
## CSI002 1.362194e-05
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
                                                                                0
  CSI013 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
## CSI023 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI034 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                                0
                                                                      0
  CSI045 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
## CSI056 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
  CSI066 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
##
          Otu12095 Otu12096
                                  Otu12097 Otu12098 Otu12099
                                                                   Otu12100
## CSI002
                  0
                            0 0.00000e+00
                                                   0
                                                             0 0.00000e+00
## CSI013
                            0 0.000000e+00
                                                   0
                                                             0 0.00000e+00
                  0
## CSI023
                  0
                            0 0.000000e+00
                                                   0
                                                             0 0.000000e+00
                  0
                                                   0
## CSI034
                            0 1.894908e-05
                                                             0 3.789817e-05
## CSI045
                  0
                            0 0.000000e+00
                                                   0
                                                             0 0.000000e+00
## CSI056
                  0
                            0 0.00000e+00
                                                   0
                                                             0 0.00000e+00
                  0
                            0 0.000000e+00
                                                   0
##
  CSI066
                                                             0 0.00000e+00
##
               Otu12101 Otu12102
                                      Otu12103 Otu12104 Otu12105 Otu12106
                                0 2.724387e-05
## CSI002 0.000000e+00
                                                       0
                                                                 0
                                                                           0
## CSI013 0.000000e+00
                                0 0.00000e+00
                                                       0
                                                                 0
                                                                           0
## CSI023 0.000000e+00
                                0 0.00000e+00
                                                       Λ
                                                                 0
                                                                           0
## CSI034 1.894908e-05
                                0 0.000000e+00
                                                       0
                                                                 0
## CSI045 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                           0
  CSI056 0.000000e+00
                                                                 0
                                0 0.00000e+00
                                                       0
                                                                 0
  CSI066 0.000000e+00
                                0 0.00000e+00
                                                       Ω
                                                                           0
          Otu12107
                        Otu12108 Otu12109 Otu12110 Otu12111 Otu12112 Otu12113
## CSI002
                  0 0.000000e+00
                                                   0
                                                             0
                                                                      0
                                         0
                                                   0
                                                             0
                                                                      0
                                                                                0
## CSI013
                  0 6.391614e-05
                                         0
                                                                                0
## CSI023
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
                                                                      0
  CSI034
                  0 0.000000e+00
                                         0
                                                   0
                                                             0
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                                                                                0
##
  CSI045
                  0 0.00000e+00
                                         0
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                                                                      0
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##
   CSI056
                  0 0.000000e+00
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   CSI066
                  0 0.000000e+00
                                         0
                                                             0
                                                                       0
                                                                                0
                                                     Otu12118 Otu12119
##
          Otu12114 Otu12115 Otu12116 Otu12117
## CSI002
                  0
                           0
                                     0
                                               0 1.362194e-05
                                                                      0
## CSI013
                  0
                           0
                                     0
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                                               0 3.195807e-05
## CSI023
                  0
                            0
                                     0
                                               0 0.00000e+00
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## CSI034
                  0
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                                               0 0.00000e+00
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                  0
                            0
                                     0
                                               0 0.00000e+00
  CSI045
                                                                      0
                  0
                            0
                                     0
##
  CSI056
                                               0.0.000000e+00
                                                                      0
                            0
   CST066
                                               0 0.00000e+00
##
               Otu12120 Otu12121 Otu12122 Otu12123 Otu12124 Otu12125
   CSI002 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
                                0
                                                   0
                                                             0
   CSI013 3.195807e-05
                                         0
                                                                      0
                                                             0
   CSI023 0.000000e+00
                                0
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  CSI034 0.000000e+00
                                0
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                                                             0
                                                                      0
   CSI045 0.000000e+00
                                0
                                         0
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                                                             0
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   CSI056 0.000000e+00
                                0
                                         0
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                                                             0
   CSI066 0.000000e+00
                                0
                                         0
                                                   0
                                                             0
                                                                      0
               Otu12126 Otu12127 Otu12128 Otu12129
                                                         Otu12130 Otu12131
## CSI002 0.000000e+00
                                         0
                                                   0 0.000000e+00
                                                                           0
                                0
                                0
                                         0
## CSI013 3.195807e-05
                                                   0 0.00000e+00
                                                                           0
## CSI023 0.000000e+00
                                0
                                         0
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                                                                           0
## CSI034 0.000000e+00
                                0
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```

```
## CSI045 0.000000e+00
                                0
                                          0
                                                    0 6.530186e-05
## CSI056 0.000000e+00
                                0
                                          0
                                                    0 0.000000e+00
                                                                             0
## CSI066 0.000000e+00
                                0
                                          0
                                                    0 0.00000e+00
                                                                             0
##
               Otu12132 Otu12133
                                       Otu12134 Otu12135 Otu12136 Otu12137
## CSI002 0.000000e+00
                                0 0.000000e+00
                                                         0
                                                                  0
                                                                             0
## CSI013 0.000000e+00
                                0 3.195807e-05
                                                         Λ
                                                                  0
                                                                             0
## CSI023 0.000000e+00
                                0 0.000000e+00
                                                         0
                                                                  0
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## CSI034 1.894908e-05
                                0 0.00000e+00
                                                         0
                                                                  0
                                                                             0
## CSI045 0.000000e+00
                                0 0.000000e+00
                                                         0
                                                                  Ω
                                                                             0
                                                         Λ
                                                                  Λ
                                                                             Λ
## CSI056 0.000000e+00
                                0 0.000000e+00
  CSI066 0.000000e+00
                                0 1.916847e-05
                                                         0
                                                                   0
##
           Otu12138 Otu12139 Otu12140 Otu12141 Otu12142 Otu12143 Otu12144
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI013
                            0
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                  0
                                      0
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## CSI023
                  0
                            0
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                                      0
                                                0
## CSI034
                  0
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                                      0
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                                                                    0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
## CSI045
                                                                             0
## CSI056
                  0
                            0
                  0
                                                0
                                                          0
                                                                    0
## CST066
                            0
                                      0
                                                                             0
           Otu12145 Otu12146
                                  Otu12147 Otu12148 Otu12149 Otu12150
## CSI002
                  Λ
                            0 0.000000e+00
                                                    Λ
                                                              Λ
                                                                        0
## CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                              0
## CSI023
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
## CSI034
                  0
                            0 3.789817e-05
                                                    0
                                                              0
                  Λ
                                                    0
                                                              0
## CSI045
                            0 0.000000e+00
## CSI056
                  0
                            0 0.000000e+00
                                                    0
                                                              0
## CSI066
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
               Otu12151 Otu12152 Otu12153 Otu12154 Otu12155 Otu12156 Otu12157
## CSI002 0.000000e+00
                                          0
                                                    0
                                                              0
                                                                        0
                                0
                                                                                  0
## CSI013 0.000000e+00
                                0
                                          0
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                                                                                  0
## CSI023 0.000000e+00
                                0
                                          0
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                                                              0
                                                                        0
                                                                                  0
## CSI034 0.000000e+00
                                0
                                          0
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                                                              0
                                                                        0
                                                                                  0
                                          0
## CSI045 0.000000e+00
                                0
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                                                              0
                                                                                  0
## CSI056 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                                  0
## CSI066 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                        0
##
           Otu12158 Otu12159 Otu12160 Otu12161 Otu12162 Otu12163 Otu12164
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI023
                  0
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## CSI034
                  Ω
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## CSI045
                  0
                            0
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## CSI056
                  0
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                                      0
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                                                                             0
                            0
                                                0
## CSI066
                  0
                                      0
                                                          0
                                                                    0
                                                                             0
           Otu12165 Otu12166 Otu12167 Otu12168 Otu12169 Otu12170 Otu12171
##
                                                          0
## CSI002
                  0
                            0
                                      0
                                                0
                                                                    0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
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## CSI023
                  0
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                  0
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## CSI034
                                      0
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## CSI045
                  0
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                                      0
                                                0
                                                          0
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## CSI056
                  0
                            0
                                      0
                                                0
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                                                                    0
                                                                             0
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CST066
           Otu12172 Otu12173 Otu12174 Otu12175 Otu12176 Otu12177 Otu12178
## CSI002
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                             0
```

	aa tooo	0	^		^		0		•		•	•	
	CSI023	0	0		0		0		0		0	0	
##	CSI034	0	0	0		0				0	0		
##	CSI045	0	0		0		0		0		0	0	
##	CSI056	0	0		0		0		0		0	0	
##	CSI066	0	0		0		0		0	400	0	0	
##	~~~~	Otu12179			tu12		Utu12		Otu12			12184	
##	CSI002		0.0000006			0		0			1.362194		
##	CSI013	0	0.0000006			0		0			0.000000		
##	CSI023	0	0.0000006			0		0			0.000000		
##	CSI034	0	1.8949086			0		0			0.000000		
##	CSI045	0	0.0000006			0		0			0.000000		
##	CSI056	0	0.0000006			0		0		-	0.000000		
##	CSI066	0	0.0000006			0		0			0.000000		
##			Otu12186	Otu12		Otu1		Otu:		Otu:			
##	CSI002	0	0		0		0		0		0	0	
##	CSI013	0	0		0		0		0		0	0	
##	CSI023	0	0		0		0		0		0	0	
##	CSI034	0	0		0		0		0		0	0	
##	CSI045	0	0		0		0		0		0	0	
##	CSI056	0	0		0		0		0		0	0	
##	CSI066	0	0		0		0		0		0	0	
##		Otu12	2192 Otu12	2193 0	tu12	194	C	tu12	2195 0	tu12	2196 Otu1	L2197	
##	CSI002	0.000000	e+00	0		0	0.000	0000	e+00		0	0	
##	CSI013	0.000000	e+00	0		0	0.000	0000	e+00		0	0	
##	CSI023	0.0000006	e+00	0		0	0.000	0000	e+00		0	0	
##	CSI034	0.0000006	e+00	0		0	0.000	0000	e+00		0	0	
##	CSI045	0.0000006	e+00	0		0	0.000	0000	e+00		0	0	
##	CSI056	0.000000	e+00	0		0	1.959	9286	e-05		0	0	
##	CSI066	1.916847	e-05	0		0	0.000	0000	e+00		0	0	
##		Otu12198	Otu12199	Otu12	200	Otu1	12201	Otu:	12202	Otu:	12203 Oti	12204	
##	CSI002	0	0		0		0		0		0	0	
##	CSI013	0	0		0		0		0		0	0	
##	CSI023	0	0		0		0		0		0	0	
##	CSI034	0	0	0			0 0			0	0		
##	CSI045	0	0	0			0 0				0	0	
##	CSI056	0	0	0			0		0		0	0	
##	CSI066	0	0		0		0		0		0	0	
##		Otu12205	Otu12206				Otu12	2208	Otu12	209	Otu12210	) Otu1	2211
	CSI002	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI013	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI023	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI034	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI045	0		0.000				0		0	(	)	0
##	CSI056	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI066	0	0	0.000	000e	+00		0		0	(	)	0
##		Otu12212	Otu12213				Otu12	2215	Otu12	216	Otu12217	Otu1	2218
##	CSI002	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI013	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI023	0	0	0.000	000e	+00		0		0	(	)	0
##	CSI034	0	0	0.000	000e	+00		0		0	(	)	0
##	~~~~	0	0	0.000	0000	+00		0		0	(	)	0
##	CSI045	U	U	0.000	oooe			·			•	,	
	CS1045 CSI056	0		0.000				0		0	(		0
##			0		000e	+00						)	0
##	CSI056	0	0	0.000	000e 000e	+00 +00	12222	0	Otu12	0	(	)	

```
## CSI002
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
## CSI013
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
                                      0
  CSI023
                  0
                            0
                                      0
                                                0 0.000000e+00 0.000000e+00
                            0
  CSI034
                  0
                                      0
                                                0 0.000000e+00 0.000000e+00
##
##
  CSI045
                  0
                            0
                                      0
                                                  0.000000e+00 0.000000e+00
                            0
                                      0
                                                0 0.000000e+00 1.959286e-05
##
  CSI056
                  0
                            0
                                                0 0.000000e+00 0.000000e+00
   CSI066
                  0
                                      0
                                   Otu12227 Otu12228
                                                                         0tu12230
##
           Otu12225 Otu12226
                                                           0tu12229
## CSI002
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
  CSI013
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI023
                  0
                            0 0.00000e+00
                                                    0 0.000000e+00 0.000000e+00
## CSI034
                  0
                                                    0 1.894908e-05 0.000000e+00
                            0
                              3.789817e-05
##
   CSI045
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
                                                    0 0.000000e+00 1.959286e-05
##
  CSI056
                  0
                            0 0.000000e+00
   CSI066
                  0
                            0 0.000000e+00
                                                    0 0.000000e+00 0.000000e+00
##
##
           Otu12231 Otu12232
                              Otu12233 Otu12234 Otu12235
                                                                Otu12236 Otu12237
## CSI002
                            0
                                                0
                                                          0 0.000000e+00
                                                                                  0
                  0
                                      0
##
  CSI013
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
  CSI023
                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
                                      0
## CSI034
                  0
                            0
                                      0
                                                0
                                                          0 0.00000e+00
                                                                                  0
##
  CSI045
                  0
                            0
                                      0
                                                0
                                                          0 0.000000e+00
                                                                                  0
  CSI056
                  0
                            0
                                                          0 0.000000e+00
                                                                                  0
  CSI066
                  0
                            0
                                                0
                                                          0 0.000000e+00
                                                                                  0
##
                                      0
           Otu12238 Otu12239
                                   Otu12240 Otu12241 Otu12242 Otu12243 Otu12244
##
## CSI002
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
  CSI013
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
## CSI023
                  0
                            0 0.00000e+00
                                                    0
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                  0
                                                    0
                                                              0
                                                                                  0
##
   CSI034
                            0 0.00000e+00
                                                                        0
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                                                              0
                                                                                  0
  CSI045
                  0
                            0 0.000000e+00
                                                                        0
##
##
  CSI056
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
  CSI066
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                        0
                                                                                  0
##
           0tu12245
                         Otu12246 Otu12247 Otu12248
                                                           Otu12249 Otu12250
## CSI002
                  0 0.00000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
  CSI013
                  0 0.000000e+00
                                                    0 3.195807e-05
                                                                            0
##
                                          0
   CSI023
                  0 0.00000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
  CSI034
                  0 0.000000e+00
                                          0
                                                    0 0.00000e+00
                                                                            0
##
   CSI045
                  0 0.000000e+00
                                          0
                                                    0 0.00000e+00
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##
  CSI056
                  0 0.000000e+00
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                                                    0 0.00000e+00
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   CSI066
                  0 0.000000e+00
                                          0
                                                    0 0.000000e+00
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##
##
               Otu12251 Otu12252 Otu12253 Otu12254
                                                      Otu12255 Otu12256 Otu12257
  CSI002 0.000000e+00
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  CSI013 0.000000e+00
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   CSI023 0.000000e+00
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   CSI034 0.000000e+00
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   CSI045 0.000000e+00
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   CSI056 0.000000e+00
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##
   CSI066 0.000000e+00
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##
           Otu12258 Otu12259 Otu12260 Otu12261 Otu12262 Otu12263
                                                                      0tu12264
## CSI002
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## CSI013
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  CSI023
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##
## CSI034
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## CSI045
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## CSI056
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## CSI066
                  0
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##
          Otu12265 Otu12266 Otu12267 Otu12268
                                                     Ot:112269
                                                                   Ot:112270
## CSI002
                  0
                           0
                                     0
                                               0 0.000000e+00 0.000000e+00
## CSI013
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                                               0 0.000000e+00 0.000000e+00
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## CSI023
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                                               0 0.000000e+00 0.000000e+00
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                                               0 0.000000e+00 0.000000e+00
## CSI034
                           0
                                     0
                                               0 0.000000e+00 0.000000e+00
## CSI045
## CSI056
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                                     0
                                               0 1.959286e-05 0.000000e+00
## CSI066
                  0
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                                     0
                                               0 0.000000e+00 0.000000e+00
##
          Otu12271 Otu12272 Otu12273 Otu12274 Otu12275 Otu12276 Otu12277
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
          0tu12278
                        Otu12279 Otu12280 Otu12281 Otu12282 Otu12283 Otu12284
## CST002
                  0 0.000000e+00
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
                  0 0.00000e+00
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          Otu12285 Otu12286
                                 Otu12287 Otu12288 Otu12289 Otu12290
## CSI002
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                           0 0.000000e+00
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                           0 0.000000e+00
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## CSI013
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## CSI023
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## CSI034
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                           0 3.789817e-05
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## CSI045
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## CSI056
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                           0 0.00000e+00
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              Otu12291 Otu12292 Otu12293 Otu12294
##
                                                         Otu12295 Otu12296
## CSI002 0.000000e+00
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                                                   0 0.00000e+00
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## CSI013 0.000000e+00
                                0
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                                                   0 6.391614e-05
## CSI023 4.082049e-05
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                                                   0 0.000000e+00
## CSI034 0.000000e+00
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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   CSI066 0.000000e+00
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                                                   0 0.00000e+00
##
                        Otu12298 Otu12299 Otu12300 Otu12301 Otu12302 Otu12303
          Ot:112297
## CSI002
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## CSI013
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## CSI023
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## CSI034
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                  0 1.894908e-05
## CSI045
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## CSI056
                  0 0.00000e+00
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   CST066
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          0tu12304
                        Otu12305 Otu12306
                                                Otu12307 Otu12308 Otu12309
## CSI002
                  0 0.000000e+00
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                                         0 0.00000e+00
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## CSI013
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## CSI023
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## CSI034
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## CSI045
                 0 3.265093e-05
                                    0 6.530186e-05
## CST056
                 0 0.000000e+00
                                       0 0.000000e+00
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## CSI066
                 0 0.000000e+00
                                      0 0.000000e+00
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##
          Otu12310 Otu12311
                              Otu12312
                                             Otu12313 Otu12314 Otu12315
## CST002
                 0
                          0 0.000000e+00 0.000000e+00
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## CSI013
                 Λ
                          0 0.000000e+00 0.000000e+00
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                          0 0.000000e+00 0.000000e+00
## CSI023
                          0 0.000000e+00 1.894908e-05
## CSI034
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## CSI045
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## CSI056
                          0 0.000000e+00 0.000000e+00
## CSI066
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                          0 0.000000e+00 0.000000e+00
          Otu12316 Otu12317 Otu12318
                                      Otu12319 Otu12320 Otu12321 Otu12322
##
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
## CSI056
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## CST066
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          Otu12323 Otu12324 Otu12325 Otu12326 Otu12327 Otu12328 Otu12329
## CSI002
                 Λ
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                                   Ω
                                            Λ
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## CSI013
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## CSI023
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## CSI034
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## CSI045
## CSI056
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## CSI066
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              Otu12330 Otu12331
                                   Otu12332 Otu12333 Otu12334 Otu12335
## CSI002 0.000000e+00 0 0.000000e+00
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## CSI013 0.000000e+00
                              0 0.00000e+00
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## CSI023 2.041025e-05
                             0 0.000000e+00
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## CSI034 0.000000e+00
                              0 1.894908e-05
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
                              0 0.000000e+00
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         Otu12336 Otu12337 Otu12338 Otu12339 Otu12340 Otu12341 Otu12342
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
## CSI056
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## CST066
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          Otu12343 Otu12344 Otu12345 Otu12346 Otu12347 Otu12348 Otu12349
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## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CST066
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          Otu12350 Otu12351 Otu12352 Otu12353 Otu12354 Otu12355 Otu12356
## CSI002
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## CSI013
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## CSI023
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## CST034
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## CSI045
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## CSI056
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##
   CST066
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           Otu12357 Otu12358 Otu12359 Otu12360 Otu12361 Otu12362
##
                                                                          Ot:112363
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## CSI002
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                                                                    0 1.362194e-05
## CSI013
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## CSI023
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## CSI034
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   CSI045
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##
   CSI056
##
   CSI066
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                                                                    0 0.000000e+00
               Otu12364 Otu12365
                                       Otu12366 Otu12367 Otu12368 Otu12369
##
   CSI002 0.000000e+00
                                 0 0.000000e+00
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   CSI013 0.000000e+00
                                 0 0.00000e+00
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   CSI023 0.000000e+00
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   CSI034 0.000000e+00
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   CSI045 0.000000e+00
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## CSI056 0.000000e+00
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##
   CSI066 0.000000e+00
                                 0 0.000000e+00
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           Otu12370 Otu12371 Otu12372 Otu12373 Otu12374 Otu12375 Otu12376
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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  CSI056
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   CSI066
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##
##
           Otu12377 Otu12378
                                   Otu12379 Otu12380 Otu12381 Otu12382 Otu12383
## CSI002
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                            0 0.000000e+00
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##
   CSI013
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## CSI023
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                            0 1.894908e-05
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## CSI034
## CSI045
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                            0 0.00000e+00
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## CSI056
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##
           Otu12384 Otu12385 Otu12386
                                             0tu12387
                                                           Otu12388 Otu12389
## CSI002
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                                      0 0.000000e+00 0.000000e+00
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## CSI013
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                                      0 0.000000e+00 0.000000e+00
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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                                      0 0.000000e+00 0.000000e+00
   CSI066
           Otu12390 Otu12391 Otu12392 Otu12393 Otu12394 Otu12395 Otu12396
##
## CSI002
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## CSI013
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  CSI023
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## CSI034
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  CSI045
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##
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## CSI056
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## CSI066
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##
          Otu12397 Otu12398 Otu12399 Otu12400 Otu12401 Otu12402 Otu12403
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## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
##
           Otu12404 Otu12405 Otu12406
                                             Otu12407 Otu12408 Otu12409
## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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##
               Otu12410 Otu12411 Otu12412 Otu12413 Otu12414 Otu12415 Otu12416
## CSI002 0.000000e+00
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## CSI013 0.000000e+00
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## CSI023 0.000000e+00
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## CSI034 1.894908e-05
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## CSI045 0.000000e+00
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## CSI056 0.000000e+00
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## CSI066 0.000000e+00
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           Otu12417 Otu12418 Otu12419 Otu12420 Otu12421 Otu12422 Otu12423
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## CSI002
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## CSI013
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## CSI023
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## CSI034
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## CSI045
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## CSI056
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## CSI066
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##
           Otu12424 Otu12425 Otu12426 Otu12427 Otu12428 Otu12429 Otu12430
## CSI002
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## CSI013
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                  0
                            0
                                      0
                                                0
                                                          0
## CSI023
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
                                                                              0
## CSI034
                  0
                            0
                                                0
                                                          0
                                                                    0
                                      0
                                                                              0
## CSI045
                            0
## CSI056
                  Ω
                            0
                                      0
                                                0
                                                          Λ
                                                                    0
                                                                              0
## CSI066
                  0
                            0
                                      0
                                                0
                                                          0
                                                                    0
##
           0tu12431
                         Otu12432 Otu12433 Otu12434 Otu12435 Otu12436 Otu12437
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
## CSI002
## CSI013
                  0 0.00000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI023
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
                                           0
                                                     0
                                                               0
## CSI034
                  0 1.894908e-05
                                                                         Λ
                                                                                   0
                  0 0.000000e+00
                                           0
                                                               0
## CSI045
## CSI056
                  0 0.000000e+00
                                           0
                                                     0
                                                               0
                                                                         0
                                                                                   0
## CSI066
                  0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                   0
           Otu12438 Otu12439 Otu12440
                                             Otu12441 Otu12442 Otu12443 Otu12444
##
## CSI002
                  0
                            0
                                      0 2.724387e-05
                                                               0
                                                                         0
                                                                                   0
## CSI013
                  0
                            0
                                      0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI023
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
                            0
## CSI034
                  0
                                      0 0.00000e+00
                                                               0
                                                                         0
                                                                                   0
## CSI045
                  0
                            0
                                      0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
                            0
## CSI056
                  0
                                      0 0.000000e+00
                                                               0
                                                                         0
                                                                                   0
```

##	CSI066	0	0	0	0.00	0000e	+00		0	0		0
##		Otu12445	Otu12446	Otu12447	Otu1	2448	Otu1	2449	Oti	12450	0tu124	51
##	CSI002	0	0	0		0		0	0.0000	00e+00		0
##	CSI013	0	0	0		0		0	0.0000	00e+00		0
##	CSI023	0	0	0		0		0	0.0000	00e+00		0
##	CSI034	0	0	0		0						0
##	CSI045	0	0	0		0			0.00000			0
##	CSI056	0	0	0		0			0.00000			0
##	CSI066	0	0	0		0		-	0.00000			0
##	~~~~	Otu12452			2454 (	Otu12			tu12456		Otu1245	
##	CSI002	0		0.000000					1387e-05			
##	CSI013	0		3.195807					000e+00			
##	CSI023	0		0.000000			0		000e+00			
##	CSI034 CSI045	0		0.000000			0		)000e+0( )000e+0(			
##	CSI045	0		0.0000000			•		000e+00			
##	CSI066	0		0.0000000					000e+00			
##	ODIOOO	Otu12458		2459 Otu12		Ω±.112						
##	CSI002		0.0000006		0	oouiz	0	Ouuiz	0	0	Oulli	0
##	CSI013		0.0000006		0		0		0	0		0
##	CSI023		0.0000006		0		0		0	0		0
##	CSI034	0	1.8949086	e-05	0		0		0	0		0
##	CSI045	0	0.0000006	e+00	0		0		0	0		0
##	CSI056	0	0.0000006	e+00	0		0		0	0		0
##	CSI066	0	0.0000006	e+00	0		0		0	0		0
##		Otu12465	Otu12466	Otu12467	Otu1	2468	Otu1	2469	0tu1247	70 Otu	12471	
##	CSI002	0	0	0		0		0		0	0	
##	CSI013	0	0	0		0		0		0	0	
##	CSI023	0	0	0		0		0		0	0	
##	CSI034	0	0	0		0		0		0	0	
##	CSI045	0	0	0		0		0		0	0	
##	CSI056	0	0	0		0		0		0	0	
##	CSI066	0	0	0 40474	0. 4	0	0.	0	0. 404	0	0	
##	CCTOOO		Otu12473		Utu1		Utu:		Utu124			
##	CSI002 CSI013	0	0	0		0		0		0	0 0	
	CSI013	0	0	0		0		0		0	0	
##	CSI023	0	0	0		0		0		0	0	
##	CSI045	0	0	0		0		0		0	0	
##	CSI056	0	0	0		0		0		0	0	
##	CSI066	0	0	0		0		0		0	0	
##		Otu12479	Otu12480	Otu12481	Otu1	2482	Otu1	2483	Otu1248	34 Otu	12485	
##	CSI002	0	0	0		0		0		0	0	
##	CSI013	0	0	0		0		0		0	0	
##	CSI023	0	0	0		0		0		0	0	
##	CSI034	0	0	0		0		0		0	0	
##	CSI045	0	0	0		0		0		0	0	
##	CSI056	0	0	0		0		0		0	0	
##	CSI066	0	0	0		0		0		0	0	
##			Otu12487		Otu1		Otu1		Otu1249		0tu124	
##	CSI002	0	0	0		0		0			00000e+	
##	CSI013	0	0	0		0		0			00000e+	
##	CSI023	0	0	0		0		0			00000e+	
##	CSI034	0	0	0		0		0		0 1.8	94908e-	05

```
## CSI045
                  0
                            0
                                     0
                                                         0
                                                                   0 0.00000e+00
## CST056
                  0
                            0
                                               0
                                                         0
                                     0
                                                                   0 0.00000e+00
## CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0 0.00000e+00
##
          Otu12493 Otu12494 Otu12495 Otu12496 Otu12497 Otu12498 Otu12499
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI023
                            0
                  0
                                     0
                                               0
                                                         0
                                                                            0
## CSI034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
                            0
                                     0
                                               0
## CSI056
                  0
                                                                            0
  CSI066
                  0
                            0
                                     0
                                               0
          Otu12500 Otu12501 Otu12502 Otu12503
##
                                                      Otu12504 Otu12505
## CSI002
                  0
                            0
                                     0
                                               0 0.000000e+00
                                                                       0
## CSI013
                            0
                                               0 3.195807e-05
                  0
                                     0
                                                                       0
## CSI023
                  0
                                               0 0.000000e+00
                            0
                                     0
                                                                       0
## CSI034
                  0
                            0
                                     0
                                               0 0.00000e+00
                                                                       0
                  0
                            0
                                     0
                                                                       0
## CSI045
                                               0 0.00000e+00
## CSI056
                            0
                                               0 0.00000e+00
                            0
                                     0
##
  CST066
                  0
                                               0.000000e+00
               Otu12506 Otu12507 Otu12508 Otu12509
                                                          Otu12510 Otu12511
## CSI002 0.000000e+00
                                0
                                          Λ
                                                   0 0.000000e+00
                                                                           0
## CSI013 0.000000e+00
                                          0
                                                   0 6.391614e-05
## CSI023 0.000000e+00
                                                   0 0.000000e+00
                                0
                                          0
                                                                           0
## CSI034 1.894908e-05
                                0
                                          0
                                                   0 0.000000e+00
                                0
                                          0
                                                                           0
## CSI045 0.000000e+00
                                                   0 0.000000e+00
## CSI056 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00
## CSI066 0.000000e+00
                                0
                                          0
                                                   0 0.000000e+00
                                                                           0
          Otu12512 Otu12513 Otu12514 Otu12515 Otu12516 Otu12517 Otu12518
## CSI002
                  0
                           0
                                     0
                                               0
                                                                   0
                                                         0
                                                                            0
## CSI013
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
## CST034
                  0
                            0
                                     0
                                               0
                                                         0
                                                                            0
## CSI045
                  0
                            0
                                     0
                                               0
                                                                            0
## CSI056
                  0
                                               0
                                                         0
                                                                   0
                                                                            0
                            0
                                     0
   CSI066
                  0
                            0
                                     0
                                               0
                                                         0
                                                                   0
                                                                            0
##
          Otu12519
                        Otu12520 Otu12521 Otu12522 Otu12523 Otu12524 Otu12525
## CSI002
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
## CSI013
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
## CSI023
                  0 0.000000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                  0 3.789817e-05
                                          0
                                                   Ω
                                                             Λ
                                                                       0
                                                                                 O
## CSI034
                                          0
                                                   0
                                                             0
  CSI045
                  0 0.00000e+00
## CSI056
                  0 0.00000e+00
                                          0
                                                   0
                                                             0
                                                                       0
                                                                                 0
                                          0
                                                   0
   CST066
                  0 0.00000e+00
                                                                       0
                                                                                 0
          Otu12526 Otu12527 Otu12528 Otu12529 Otu12530
                                                               Otu12531 Otu12532
##
## CSI002
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
## CSI013
                  0
                                                         0 0.000000e+00
                                                                                 0
                            0
                                     0
                                               0
## CSI023
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
                  0
                            0
                                     0
                                               0
                                                                                 0
## CSI034
                                                         0 0.00000e+00
## CSI045
                  0
                            0
                                     0
                                               0
                                                         0 0.000000e+00
                                                                                 0
## CSI056
                  0
                            0
                                     0
                                               0
                                                         0 0.00000e+00
                                                                                 0
                            0
                                                                                 0
##
                  0
                                               0
                                                         0 0.00000e+00
               Otu12533 Otu12534
                                      Otu12535 Otu12536
                                                              Otu12537 Otu12538
## CSI002 0.000000e+00
                                0 1.362194e-05
                                                        0 0.000000e+00
                                                                                0
## CSI013 0.000000e+00
                                0 0.00000e+00
                                                        0 0.000000e+00
                                                                                0
```

##	CCTOOS	0 000000		0 0 000	2000-100	0 (	0.000000e+	100
##		0.0000006			0000e+00 0000e+00		3.789817e-	
##		6.530186			000e+00		0.703017e 0.000000e+	
##		0.0000006			000e+00		0.000000e	
##		0.0000000			000e+00		0.000000e	
##	ODIOOO			Otu12541		-		2544 Otu12545
##	CSI002	0	0	0	0		1.362194	
##	CSI013	0	0	0	0		0.0000006	
##	CSI023	0	0	0	0		0.0000000	
##	CSI023	0	0	0	0		0.0000000	
##	CSI045	0	0	0	0		0.0000000	
##	CSI056	0	0	0	0	0	0.0000000	
##	CSI066	0	0	0	0	0	0.0000000	
##	ODIOOO	_	-	-		Otu12550		
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu12553	Otu12554	Otu12555	Otu12556	Otu12557	Otu12558	Otu12559
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu12560	Otu12561	Otu12562	Otu12563	Otu12564	Otu12565	Otu12566
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
	CSI066	0	0	0	0	0	0	0
##	aa tooo					Otu12571		
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023 CSI034	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
	CSI066	0	0	0	0	0	0	0
##	001000	_	-	-	-	Otu12578	-	
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045	0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu12581	Otu12582	Otu12583	Otu12584	Otu12585	Otu12586	Otu12587

			_		_			_		
##	CSI002	0	0		0	0		0		00000e+00
##	CSI013	0	0		0	0		0		00000e+00
##	CSI023	0	0		0	0		0	0 0.0	00000e+00
##	CSI034	0	0		0	0		0	0 0.0	00000e+00
##	CSI045	0	0		0	0		0	0 0.0	00000e+00
##	CSI056	0	0		0	0		0	0 0.0	00000e+00
##	CSI066	0	0		0	0		0	0 0.0	00000e+00
##		Otu12588	Otu12589	Otu1259	0 Otu	12591		Otu12592	Otu12593	Otu12594
##	CSI002	0	0		0	0	2.72	24387e-05	0	
##	CSI013	0	0		0	0	0.00	00000e+00	0	0
##	CSI023	0	0		0	0		00000e+00	0	
##	CSI034	0	0		0	0		00000e+00	0	-
##	CSI045	0	0		0	0		00000e+00	0	-
##	CSI056	0	0		0	0		00000e+00	0	-
	CSI066	0	0		0	-		00000e+00 00000e+00	0	
##	C21000	-	_		•				-	-
##	aa tooo	Otu12595				Utuli		Otu12599		
##	CSI002	0	0.0000006		0		0	0	0	
##	CSI013	0	0.0000006		0		0	0	0	
##	CSI023	0	0.0000006		0		0	0	0	0
##	CSI034	0	0.0000006	e+00	0		0	0	0	0
##	CSI045	0	0.0000006	e+00	0		0	0	0	0
##	CSI056	0	0.0000006	e+00	0		0	0	0	0
##	CSI066	0	3.833694	e-05	0		0	0	0	0
##		Otu12602	Otu12603	Otu1260	4 Otu	12605	Otu:	12606	Otu12607	Otu12608
##	CSI002	0	0		0	0		0 0.0	00000e+00	0
##	CSI013	0	0		0	0		0 0.0	00000e+00	0
##	CSI023	0	0		0	0		0 0.0	00000e+00	0
##	CSI034	0	0		0	0		0 1.8	94908e-05	0
##	CSI045	0	0		0	0		0 0.0	00000e+00	0
##	CSI056	0	0		0	0			00000e+00	
##	CSI066	0	0		0	0			00000e+00	
##	001000	Otu12609	•		-	-	2612	Otu12613		
##	CSI002	0	0			Otuli	0	0	00012014	
##	CSI013	0	0	0.00000			0	0	0	
##	CSI023	0	0	0.00000			0	0	0	
##	CSI034	0	0	0.00000			0	0	0	
##	CSI045	0	0	0.00000			0	0	0	
	CSI056	0		0.00000			0	0	0	
	CSI066	0		0.00000			0	0	0	
##				2616 Otu	12617	Otu12	2618	Otu12619	Otu12620	Otu12621
		0.0000006		0	0		0	0	0	0
##	CSI013	0.000000	e+00	0	0		0	0	0	0
		0.000000		0	0		0	0	0	0
##	CSI034	0.0000006	e+00	0	0		0	0	0	0
##	CSI045	0.0000006	e+00	0	0		0	0	0	0
##	CSI056	0.0000006	e+00	0	0		0	0	0	0
##	CSI066	0.0000006	e+00	0	0		0	0	0	0
##		Otu12622	Otu12623	Otu1262	4 Otu	12625	Otu:	12626 Otu	12627 Otu	12628
##	CSI002	0	0		0	0		0	0	0
	CSI013	0	0		0	0		0	0	0
	CSI023	0	0		0	0		0	0	0
	CSI034	0	0		0	0		0	0	0
	CSI045	0	0		0	0		0	0	0
	CSI043	0	0		0	0		0	0	0
πĦ	001000	U	U		J	J		J	J	U

##	CSI066	0	0	0	0	0	0	0	
##	0.000	-	Otu12630	-	-	Otu12633	Otu12	.634 Otu1263	35
##	CSI002	0	0	0	0		0.0000006	+00	0
##	CSI013	0	0	0	0	0	0.0000006	+00	0
##	CSI023	0	0	0	0	0	0.0000006	+00	0
##	CSI034	0	0	0	0	0	0.0000006	+00	0
##	CSI045	0	0	0	0	0	0.0000006	+00	0
##	CSI056	0	0	0	0	0	0.0000006	+00	0
##	CSI066	0	0	0	0	0	0.0000006	+00	0
##		Otu12636	Otu12637	Otu12638	Otu12639	Otu12	2640 Otu12	2641 Otu1264	42
##	CSI002	0	0	0	0	1.362194	e-05	0	0
##	CSI013	0	0	0	0	0.000000	e+00	0	0
##	CSI023	0	0	0	0	0.000000	e+00	0	0
##	CSI034	0	0	0		1.894908		0	0
##	CSI045	0	0	0		0.000000		0	0
##	CSI056	0	0	0		0.0000000		0	0
##	CSI066	0	0	0		0.0000006		0	0
##	CCTOO						Otu12648		
	CSI002	0	0	0	0	0	0	0	
	CSI013 CSI023	0	0	0	0	0	0	0	
	CSI023	0	0	0	0	0	0	0	
	CSI034	0	0	0	0	0	0	0	
	CSI056	0	0	0	0	0	0	0	
	CSI066	0	0	0	0	0	0	0	
##	001000	•	•	·	•	·	Otu12655	ū	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu12657	Otu12658	Otu12659	Otu12660	Otu12661	Otu12662	Otu12663	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
	CSI023	0	0	0	0	0	0	0	
	CSI034	0	0	0	0	0	0	0	
	CSI045	0	0	0	0	0	0	0	
	CSI056	0	0	0	0	0	0	0	
##	CSI066	0+112664	0+112665	0+112666	0+112667	0+112669	0 Otu12669	0+112670	
	CSI002	00012664	0 0	0	0	0 0 0	0 0 0	0	
	CSI002	0	0	0	0	0	0	0	
	CSI023	0	0	0	0	0	0	0	
	CSI034	0	0	0	0	0	0	0	
	CSI045	0	0	0	0	0	0	0	
	CSI056	0	0	0	0	0	0	0	
	CSI066	0	0	0	0	0	0	0	
##		Otu12671	Otu12	2672 (	)tu12673 (	)tu12674 (	Otu12675 (	tu12676	
##	CSI002	0	0.0000006	e+00 0.000	0000e+00	0	0	0	
	CSI013	0	0.0000006	e+00 0.000	0000e+00	0	0	0	
##	CSI023	0	0.0000006	e+00 0.000	0000e+00	0	0	0	
##	CSI034	0	0.0000006	e+00 1.894	4908e-05	0	0	0	

##	CSI045	0	0.000000	e+00 0.000	0000e+00	0	0	0
##	CSI056	0	0.000000	e+00 0.000	0000e+00	0	0	0
##	CSI066	0	3.833694	e-05 0.000	0000e+00	0	0	0
##		Otu12677	Otu12678	Otu12679	Otu12680	Otu12681	Otu12682	Otu12683
##	CSI002	0	0	0	0	0	0	0.000000e+00
##	CSI013	0	0	0	0	0	0	0.000000e+00
##	CSI023	0	0	0	0	0	0	0.000000e+00
##	CSI034	0	0	0	0	0	0	0.000000e+00
##	CSI045	0	0	0	0	0	0	0.000000e+00
##	CSI056	0	0	0	0	0	0	0.000000e+00
##	CSI066	0	0	0	0	0	0	0.000000e+00
##	CSI002	00012004	Otu12685	Otu12686	0	Otu12688	0 0 0	Otu12690 0
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu12691	Otu12692	Otu12693	Otu12694	Otu12695	Otu12	2696 Otu12697
##	CSI002	0	0	0	0	0	0.0000006	e+00 0
##	CSI013	0	0	0	0	0	0.0000006	e+00 0
##	CSI023	0	0	0	0	0	0.0000006	e+00 0
##	CSI034	0	0	0	0	0	0.0000006	e+00 0
##	CSI045	0	0	0	0	0	3.265093	e-05 0
##	CSI056	0	0	0	0	0	0.000000	e+00 0
##	CSI066	0	0	0	0	0	0.0000006	e+00 0
##		Otu12698	Otu12699	Otu12700	Otu12701	Otu12702	Otu12703	Otu12704
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056 CSI066	0	0	0	0	0	0	0
##	C21000	•	•	Otu12707	•	Otu12709	ū	•
	CSI002	0	0	00012707	00012700	00012709	00012710	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045	•						
		0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
##		-					-	
## ##	CSI056	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
## ##	CSI056 CSI066	0 0 0tu12712	0 0 0tu12713	0 0 0tu12714	0 0 0tu12715	0 0 0tu12716	0 0 0tu12717	0 0 0tu12718
## ## ##	CSI056 CSI066 CSI002	0 0 0tu12712 0	0 0 0tu12713 0	0 0 0tu12714 0	0 0 0tu12715 0	0 0 0tu12716 0	0 0 0tu12717 0	0 0 0tu12718 0
## ## ## ##	CSI056 CSI066 CSI002 CSI013	0 0 0tu12712 0 0	0 0 0tu12713 0 0	0 0 0tu12714 0 0	0 0 0tu12715 0 0	0 0 0tu12716 0 0	0 0 0tu12717 0 0	0 0 0tu12718 0
## ## ## ## ##	CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0tu12712 0 0	0 0 0tu12713 0 0	0 0 0tu12714 0 0	0 0 0tu12715 0 0	0 0 0tu12716 0 0	0 0 0tu12717 0 0	0 0 0tu12718 0 0
## ## ## ## ## ##	CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0tu12712 0 0	0 0 0tu12713 0 0 0	0 0 0 0tu12714 0 0 0	0 0 0 0tu12715 0 0 0 0 0	0 0 0tu12716 0 0 0	0 0 0tu12717 0 0	0 0 0 0tu12718 0 0 0
## ## ## ## ## ##	CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0tu12712 0 0 0 0 0	0 0 0tu12713 0 0 0 0 0 0	0 0 0 0 0tu12714 0 0 0 0 0	0 0 0 0tu12715 0 0 0 0 0	0 0 0 0tu12716 0 0 0 0 0	0 0 0 0tu12717 0 0 0 0 0	0 0 0 0tu12718 0 0 0 0 0 0
## ## ## ## ## ##	CSI056 CSI006 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0tu12712 0 0 0 0 0 0 0 0 0	0 0 0tu12713 0 0 0 0 0 0 0 0 0	0 0 0tu12714 0 0 0 0 0 0 0 0 0 0	0 0 0 0tu12715 0 0 0 0 0 0 0 0	0 0 0 0tu12716 0 0 0 0 0 0 0 0 0	0 0 0 0tu12717 0 0 0 0 0 0 0 0	0 0 0 0tu12718 0 0 0 0 0 0 0 0 0 0
## ## ## ## ## ## ##	CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0tu12712 0 0 0 0 0	0 0 0tu12713 0 0 0 0 0 0	0 0 0 0 0tu12714 0 0 0 0 0	0 0 0 0tu12715 0 0 0 0 0	0 0 0 0tu12716 0 0 0 0 0	0 0 0 0tu12717 0 0 0 0 0	0 0 0 0tu12718 0 0 0 0 0 0

```
## CSI023
                   0
                             0
                                                                               0
  CSI034
                   0
                             0
                                                 0
                                                           0
##
                                       0
                                                                     0
                                                                               0
   CSI045
                   0
                             0
                                                 0
                                                           0
                                                                               0
   CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
##
   CSI066
                   0
                             0
                                                                     0
                                                                               0
##
           0tu12726
                         Otu12727 Otu12728
                                                  Otu12729 Otu12730 Otu12731
  CSI002
                   0 0.00000e+00
                                           0 0.00000e+00
                                                                    0
## CSI013
                   0 0.00000e+00
                                           0 0.00000e+00
                                                                    0
                                                                              0
##
   CSI023
                   0 0.000000e+00
                                           0 0.00000e+00
                                                                    0
                                                                              0
                                                                    0
                                                                              0
##
   CSI034
                   0 1.894908e-05
                                           0 0.000000e+00
   CSI045
                   0 0.000000e+00
                                           0 0.00000e+00
                                                                    0
                                                                              0
                   0 0.000000e+00
                                           0 0.000000e+00
                                                                    0
                                                                              0
##
   CSI056
##
   CSI066
                   0 0.000000e+00
                                           0 0.000000e+00
                                                                    0
                                                                              0
##
           Otu12732 Otu12733 Otu12734 Otu12735 Otu12736 Otu12737
                                                                       0tu12738
## CSI002
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI013
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI023
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                   0
                                       0
   CSI034
                   0
                             0
                                       0
                                                           0
                                                                               0
   CSI045
                   0
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                                       0
##
   CSI056
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CST066
                   Λ
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
           0tu12739
                     Otu12740
                               Otu12741 Otu12742 Otu12743 Otu12744
## CSI002
                                                           0
                                                                     0
                   0
                             0
                                       0
                                                 0
                                                                               0
   CSI013
                             0
                                                 0
                                                           0
                                                                     0
##
                   0
                                       0
                                                                               0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI034
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI045
                   0
                             0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
   CSI056
                             0
                                                 0
                                                           0
                                                                     0
                                                                               0
##
                   0
                                       0
                                                 0
                                                           0
                                                                     0
                                                                               0
   CSI066
                   0
                             0
                                       0
##
##
           Otu12746 Otu12747
                                   Otu12748 Otu12749
                                                       Otu12750 Otu12751 Otu12752
## CSI002
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI013
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                    0
   CSI023
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                          0
                                                                                    0
                   0
                               0.000000e+00
                                                     0
                                                               0
                                                                                    0
##
   CSI034
                             0
                                                                         0
   CSI045
                   0
                               0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
   CSI056
                   0
                             0 0.000000e+00
                                                     0
                                                               0
                                                                         0
                                                                                    0
##
##
   CSI066
                   0
                             0 1.916847e-05
                                                     0
                                                               0
                                                                         0
##
           0tu12753
                         0tu12754
                                        Otu12755 Otu12756 Otu12757 Otu12758
## CSI002
                   0 0.000000e+00 0.000000e+00
                                                          0
                                                                    0
                                                                              0
   CSI013
                   0 0.000000e+00 0.000000e+00
                                                          Λ
                                                                    0
                                                                              0
##
   CSI023
                    0.000000e+00 0.000000e+00
                                                                    0
                                                                              0
                                                          0
   CSI034
                   0 1.894908e-05 0.000000e+00
                                                          0
                                                                    0
                                                                              0
##
                   0 0.000000e+00 0.000000e+00
                                                                    0
   CSI045
                                                          0
                                                                              0
                                                                    0
##
   CSI056
                   0 0.000000e+00 0.000000e+00
                                                          Λ
                                                                              0
                                                                    0
##
   CSI066
                   0 0.000000e+00 0.000000e+00
##
           Otu12759 Otu12760
                                   Otu12761 Otu12762
                                                            Otu12763 Otu12764
## CSI002
                   0
                             0 0.00000e+00
                                                     0 0.00000e+00
                                                                              0
   CSI013
                                                                              0
##
                   0
                             0 3.195807e-05
                                                     0 0.00000e+00
   CSI023
                   0
                             0 0.00000e+00
                                                     0
                                                       0.000000e+00
                                                                              0
##
   CSI034
                   0
                               0.000000e+00
                                                       0.000000e+00
                                                                              0
   CSI045
                   0
                               0.000000e+00
                                                       0.000000e+00
                                                                              0
##
                             0
## CSI056
                   0
                             0 0.00000e+00
                                                     0 0.00000e+00
                                                                              0
## CSI066
                   0
                             0 0.000000e+00
                                                     0 0.00000e+00
                                                                              0
##
           Otu12765 Otu12766 Otu12767 Otu12768 Otu12769 Otu12770 Otu12771
```

	~~~~	•				•		•	
	CSI002	0	0	0	0	0	0	0	
	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu12772		0tu12774			2776 Otu12		778
##	CSI002	0	0	0	-	0.0000006		0	0
##	CSI013	0	0	0		0.0000006		0	0
##	CSI023	0	0	0		0.0000006		0	0
##	CSI034	0	0	0		0.0000006		0	0
##	CSI045	0	0	0	0	0.0000006	9+00	0	0
##	CSI056	0	0	0	0	1.959286	e-05	0	0
##	CSI066	0	0	0	0	0.0000006	e+00	0	0
##		Otu12779	Otu12780	Otu12781	Otu12782	Otu12783	Otu12784	Otu12785	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu12786	Otu12787	Otu12788	Otu12789	Otu12790	Otu12791	Otu12792	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu12793	Otu12794	Otu12795	Otu12796	Otu12797	Otu12798	Otu12799	
##	CSI002	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI034	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu12	2800 Otu12	2801 Otu12	2802 Otu12	2803 Otu12	2804 Otu12	2805 Otu12	806
##	CSI002	0.0000006	e+00	0	0	0	0	0	0
##	CSI013	0.0000006	e+00	0	0	0	0	0	0
##	CSI023	0.0000006	e+00	0	0	0	0	0	0
##	CSI034	0.0000006	e+00	0	0	0	0	0	0
##	CSI045	6.5301866	e-05	0	0	0	0	0	0
##	CSI056	0.0000006	e+00	0	0	0	0	0	0
##	CSI066	0.0000006	e+00	0	0	0	0	0	0
##		Otu12807	Otu12808	Otu12809	Otu12810	Otu12811	Otu12812	Otu12813	
##	CSI002	0	0	0	0	0	0	0	
	CSI013	0	0	0	0	0	0	0	
	CSI023	0	0	0	0	0	0	0	
	CSI034	0	0	0	0	0	0	0	
	CSI045	0	0	0	0	0	0	0	
	CSI056	0	0	0	0	0	0	0	
		_	_	_	-	_		-	

##	CSI066	0	0	0		0		0		0		0	
##	ODIOOO	-	Otu12815	-			2817	-	2818	-	2819	-	320
##	CSI002	0	0			000006			0		0		0
##	CSI013	0	0	0		00000e			0		0		0
##	CSI023	0	0	0	0.00	00000e	e+00		0		0		0
##	CSI034	0	0	0	0.00	00000e	e+00		0		0		0
##	CSI045	0	0	0	0.00	0000c	e+00		0		0		0
##	CSI056	0	0	0	0.0	0000e	e+00		0		0		0
##	CSI066	0	0	0	0.00	00000e	e+00		0		0		0
##		Otu12821	Otu12822	Otu12823	Otu:	12824	Otu:	12825	Otu1	.2826	Otu1	2827	
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0	2004	0		0		0	
##	aa tooo	Otu12828				Otu12				2832 (	Jtu12		
##	CSI002	0		0.000000			-	0.000				0	
##	CSI013 CSI023	0		3.1958076 0.0000006				0.000				0	
##	CSI023	0		0.000000				3.789				0	
##	CSI034	0	•	0.0000000				0.000				0	
##	CSI045	0		0.0000000			-	0.000				0	
##	CSI066	0		0.0000000			-	0.000				0	
##	ODIOOO	Otu12834		2835 Otu12		0t.ii12					2839	•	340
##	CSI002		0.0000006		0	Our	0	Juli	0	Juli	0	o o u i z .	0
##	CSI013	0			0		0		0		0		0
##	CSI023	0	0.0000006	e+00	0		0		0		0		0
##	CSI034	0	0.0000006	e+00	0		0		0		0		0
##	CSI045	0	0.0000006	e+00	0		0		0		0		0
##	CSI056	0	0.0000006	e+00	0		0		0		0		0
##	CSI066	0	0.0000006	e+00	0		0		0		0		0
##		Otu12841	Otu12842	Otu12843	Otu:	12844	Otu:	12845	Otu1	2846	Otu1	2847	
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
	CSI023	0	0	0		0		0		0		0	
	CSI034	0	0	0		0		0		0		0	
	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
	CSI066	0	0 Otu12849	0	0+	0	0+	0	0+1	0	0+1	0	
##	CSI002	0 0 0	00012849	0 0 0	otu.	12851	otu.	12052	otui	.2053	otui	2054 0	
	CS1002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##		Otu1	2855 (	)tu12856 (	)tu1:	2857 (	tu12	2858 (	tu12	2859 (	)tu12	-	
##	CSI002		e+00 0.000			0		0	_	0		0	
##	CSI013	6.391614	e-05 0.000	0000e+00		0		0		0		0	
##	CSI023	0.000000	e+00 0.000	0000e+00		0		0		0		0	
##	CSI034	0.000000	e+00 0.000	0000e+00		0		0		0		0	

## ##		0.0000006				0		0		0		0
##		0.0000006				0		0		0		0
##		Otu12861	Otu12862	Otu12863	Otu1	2864	Otu1	2865		Otu12	2866	Otu12867
##	CSI002	0	0	0		0		0	0.00	00006	e+00	0
##	CSI013	0	0	0		0		0	0.00	00006	e+00	0
##	CSI023	0	0	0		0		0		00006		0
##	CSI034	0	0	0		0		0		9817€		0
##	CSI045	0	0	0		0		0		0000€		0
##	CSI056	0	0	0		0		0		0000		0
##	CSI066	0 Otu12868	0 Otu12869	0 Otu12870	Otu1	0	0+1	0 2872.		0000e		0 0tu12874
##	CSI002	0 0 0	0	0	Utui	2011	Utui	.2012	Utui			0000e+00
##	CS1002	0	0	0		0		0		0		0000e+00
##	CSI013	0	0	0		0		0		0		0000e+00
##	CSI023	0	0	0		0		0		0		0000e+00
##	CSI045	0	0	0		0		0		0		0000e+00
##	CSI056	0	0	0		0		0		0		0000e+00
##	CSI066	0	0	0		0		0		0		0000e+00
##		Otu12875	Otu12876	Otu12877	Otu1	2878	Otu1	2879	Otu1	2880	Otu1	2881
##	CSI002	0	0	0		0		0		0		0
##	CSI013	0	0	0		0		0		0		0
##	CSI023	0	0	0		0		0		0		0
##	CSI034	0	0	0		0		0		0		0
##	CSI045	0	0	0		0		0		0		0
##	CSI056	0	0	0		0		0		0		0
##	CSI066	0	0	0	<b>.</b>	0	a	0	<b>.</b> .	0	<b>.</b>	0
##	aarooo		Otu12883		Utul		Utu1		Utu1	2887	Otu1	
##	CSI002 CSI013	0	0	0		0		0		0		0
##	CSI013	0	0	0		0		0		0		0
##	CSI023	0	0	0		0		0		0		0
##	CSI045	0	0	0		0		0		0		0
##	CSI056	0	0	0		0		0		0		0
##	CSI066	0	0	0		0		0		0		0
##		Otu12889	Otu12890	Otu12891	Otu1	2892	Otu1	2893	Otu1	2894	Otu1	2895
##	CSI002	0	0	0		0		0		0		0
##	CSI013	0	0	0		0		0		0		0
	CSI023	0	0	0		0		0		0		0
	CSI034	0	0	0		0		0		0		0
	CSI045	0	0	0		0		0		0		0
	CSI056	0	0	0		0		0		0		0
	CSI066	0	0	0	2000	0	2000	0	2000	0	2004	0
##	CSI002		Otu12897			Utuli		Utuli		Utu12		Otu12902
	CS1002	0		0.000000			0		0		0	0
##	CSI013	0		0.0000000			0		0		0	0
##	CS1023	0		1.8949086			0		0		0	0
##	CSI045	0		0.0000006			0		0		0	0
##	CSI056	0		0.0000000			0		0		0	0
##	CSI066	0		0.0000000			0		0		0	0
##				Otu12905		2906	Otu1	2907	Otu1	2908	Otu1	2909
##	CSI002	0	0	0		0		0		0		0
##	CSI013	0	0	0		0		0		0		0

шш	aarooo	0	0	0	0	0	0		^
##	CSI023 CSI034	0	0	0	0	0	0		0
##	CSI034	0	0	0	0	0	0		0
##	CSI045	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##	CSTOOO	-	•	Otu12912	•	Otu12914	•	2015	Otu12916
	CSI002	00012910	00012911	00012912	00012913	00012314			00012910
##	CSI002	0	0	0	0	0	6.391614		0
##	CSI013	0	0	0	0	0	0.0000006		0
##	CSI023	0	0	0	0	0	0.0000000		0
##	CSI045	0	0	0	0	0	0.0000000		0
##	CSI056	0	0	0	0	0	0.0000000		0
##	CSI066	0	0	0	0	0	0.0000000		0
##	ODIOOO	•	Otu12918	•	·	Otu12921			Ŭ
##	CSI002	0	0	0	0	0	0	oous	0
##	CSI013	0	0	0	0	0	0		0
##	CSI023	0	0	0	0	0	0		0
##	CSI034	0	0	0	0	0	0		0
	CSI045	0	0	0	0	0	0		0
##	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##		Otu12924	Otu12925	Otu12926	Otu12927	Otu12	2928 Otu12	2929	Otu12930
##	CSI002	0	0	0	0	1.362194	e-05	0	0
##	CSI013	0	0	0	0	0.0000006	e+00	0	0
##	CSI023	0	0	0	0	0.0000006	e+00	0	0
##	CSI034	0	0	0	0	0.0000006	e+00	0	0
##	CSI045	0	0	0	0	0.0000006	e+00	0	0
##	CSI056	0	0	0	0	0.0000006	e+00	0	0
##	CSI066	0	0	0	0	0.0000006	e+00	0	0
##		Otu12931	Otu12932	Otu12933	Otu12934	Otu12935	Otu12936	Otu1	.2937
##	CSI002	0	0	0	0	0	0		0
##	CSI013	0	0	0	0	0	0		0
##	CSI023	0	0	0	0	0	0		0
##	CSI034	0	0	0	0	0	0		0
##	CSI045	0	0	0	0	0	0		0
##	CSI056	0	0	0	0	0	0		0
##	CSI066	0	0	0	0	0	0		0
##						Otu12942		Otu1	
	CSI002	0	0	0	0	0	0		0
	CSI013	0	0	0	0	0	0		0
	CSI023	0	0	0	0	0	0		0
	CSI034	0	0	0	0	0	0		0
	CSI045 CSI056	0	0	0	0	0	0		0
		0	0	0	0	0	0		0
##	CSI066	_	_		-	Otu12949	_	O+111	
	CSI002	00012945	00012946	00012947	00012940	00012949	0 0 0	Utui	0
	CSI002	0	0	0	0	0	0		0
	CSI013	0	0	0	0	0	0		0
	CS1023	0	0	0	0	0	0		0
	CSI034	0	0	0	0	0	0		0
	CSI045	0	0	0	0	0	0		0
	CSI066	0	0	0	0	0	0		0
##	251000	-	-	-	-	Otu12956	-	O±111	
ii TT		50412002	50412000	5041200T	50412000	50412000	50412001	Jour	2000

```
## CSI002
                                                                                0
## CSI013
                   0
                                                 0
                                                            0
                             0
                                       0
                                                                      0
                                                                                0
## CSI023
                   0
                             0
                                                            0
                                                                                0
  CSI034
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
##
  CSI045
                   0
                             0
                                                 0
                                                                                0
                             0
                                                 0
                                                            0
##
  CSI056
                   0
                                       0
                                                                                0
##
   CSI066
           Otu12959
##
                          Otu12960 Otu12961 Otu12962 Otu12963
                                                                       0tu12964
## CSI002
                   0 0.000000e+00
                                            0
                                                      0
                                                                0 0.00000e+00
                                            0
                                                      0
##
   CSI013
                   0 0.000000e+00
                                                                0 0.000000e+00
  CSI023
                   0 0.000000e+00
                                            0
                                                      0
                                                                0 0.000000e+00
  CSI034
                   0 0.000000e+00
                                            0
                                                      0
                                                                  0.000000e+00
##
##
   CSI045
                   0 0.000000e+00
                                            0
                                                      0
                                                                0 0.000000e+00
   CSI056
                                            0
##
                   0 1.959286e-05
                                                      0
                                                                0 0.00000e+00
##
   CSI066
                   0 0.000000e+00
                                            0
                                                      0
                                                                0 0.000000e+00
##
           Otu12965 Otu12966 Otu12967 Otu12968 Otu12969 Otu12970 Otu12971
## CSI002
                                                 0
                                                            0
                                                                                0
                   0
                             0
                                       0
                                                                      0
##
  CSI013
                   0
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  CSI023
                   0
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##
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##
   CSI034
                   0
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##
   CSI045
                   0
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   CSI056
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  CSI066
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##
                   0
               Otu12972 Otu12973 Otu12974 Otu12975 Otu12976 Otu12977 Otu12978
##
## CSI002 1.362194e-05
                                  0
                                            0
                                                      0
                                                                0
                                                                          0
                                                                                     0
   CSI013 0.000000e+00
                                  0
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   CSI023 0.000000e+00
                                  0
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                                                      0
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   CSI034 0.000000e+00
                                  0
                                            0
                                                      0
                                                                0
                                                                                     0
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                                                                                     0
   CSI045 0.000000e+00
                                  0
                                            0
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   CSI056 0.000000e+00
                                  0
                                            0
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##
   CSI066 0.000000e+00
                                  0
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                                                      0
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##
           Otu12979 Otu12980 Otu12981 Otu12982 Otu12983 Otu12984 Otu12985
## CSI002
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI013
                             0
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                   0
                                       0
  CSI023
                   0
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## CSI034
                             0
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                   0
                                       0
## CSI045
                   0
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## CSI056
                   0
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                                       0
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                                                                      0
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                   0
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##
   CSI066
##
           Otu12986 Otu12987
                               Otu12988 Otu12989 Otu12990 Otu12991
                             0
## CSI002
                   0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI013
                   0
                             0
                                       0
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                                                            0
                                                                      0
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## CSI023
                   0
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                             0
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##
  CSI034
                   0
                                       0
                                                                      0
                                                                                0
## CSI045
                             0
                                                 0
                   0
                                       0
                                                            0
                                                                      0
                                                                                0
## CSI056
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                       0
##
   CSI066
                   0
                             0
                                                 0
                                                                      0
                                                                                0
                                    Otu12995 Otu12996
##
           Otu12993 Otu12994
                                                             Otu12997 Otu12998
## CSI002
                   0
                             0 0.00000e+00
                                                      0 0.00000e+00
                                                                               0
##
  CSI013
                   0
                               0.000000e+00
                                                      0 6.391614e-05
                                                                               0
  CSI023
                   0
                               0.000000e+00
                                                      0 0.000000e+00
                                                                               0
##
## CSI034
                   0
                             0 0.00000e+00
                                                      0 0.00000e+00
                                                                               0
## CSI045
                   0
                             0 0.000000e+00
                                                      0 0.00000e+00
                                                                               0
## CSI056
                   0
                             0 0.00000e+00
                                                      0 0.00000e+00
                                                                               0
```

##	CSI066	0	0	0.0	000006	9+00		0	0.000	0000	e+00	0
##	0.000	•	Otu13000				Otu13				Otu13004	Otu13005
##	CSI002	0	0	1.3	62194			0		0	0	0
##	CSI013	0	0	0.0	000006	e+00		0		0	0	0
##	CSI023	0	0	0.0	000006	e+00		0		0	0	0
##	CSI034	0			000006			0		0	0	0
##	CSI045	0			000006			0		0	0	0
##	CSI056	0	0	0.0	000006	e+00		0		0	0	0
##	CSI066	0	0	0.0	000006	e+00		0		0	0	0
##		Otu13	3006 Otu13	3007	Otu13	3008	Otu13	3009	Otu13	3010	Otu13011	Otu13012
##	CSI002	0.0000006	e+00	0		0		0		0	0	0
##	CSI013	0.0000006	e+00	0		0		0		0	0	0
##	CSI023	0.0000006	e+00	0		0		0		0	0	0
##	CSI034	0.0000006	e+00	0		0		0		0	0	0
##	CSI045	0.0000006	e+00	0		0		0		0	0	0
##	CSI056	3.9185726	e-05	0		0		0		0	0	0
##	CSI066	0.0000006	e+00	0		0		0		0	0	0
##		Otu13013	Otu13014	Otu	13015	Otu1	13016	Otu	13017	Otu:	13018 Otu:	13019
##	CSI002	0	0		0		0		0		0	0
##	CSI013	0	0		0		0		0		0	0
##	CSI023	0	0		0		0		0		0	0
##	CSI034	0	0		0		0		0		0	0
##	CSI045	0	0		0		0		0		0	0
##	CSI056	0	0		0		0		0		0	0
##	CSI066	0	0		0		0		0		0	0
##		Otu13020			Otu13		Otu13		Otu13		Otu13025	
##	CSI002		0.0000006			0		0		0	0	0
##	CSI013		0.0000006			0		0		0	0	0
##	CSI023		0.0000006			0		0		0	0	0
##	CSI034		0.0000006			0		0		0	0	0
##	CSI045		0.0000006			0		0		0	0	0
##	CSI056		0.0000006			0		0		0	0	0
##	CSI066		Otu13028			U	0+1112	-	0+111	•	Otu13032	•
##	CSI002	0 0 0	0 0 0	Utu		0 00	0000e		Utur	0	000000	0
##	CSI002	0	0		0		95807e			0	0	0
	CSI023	0	0		0		)0000rc			0	0	0
	CSI034	0	0		-		)0000e			0	0	0
	CSI045	0	0				)0000e			0	0	0
##	CSI056	0	0				)0000e			0	0	0
##	CSI066	0	0				0000e			0	0	0
##		Otu13034	Otu13035	Otu					13038		Otu13039	Otu13040
##	CSI002	0	0		0		0		0	0.00	00000e+00	0
##	CSI013	0	0		0		0		0	0.00	00000e+00	0
##	CSI023	0	0		0		0		0	0.00	00000e+00	0
##	CSI034	0	0		0		0		0	0.00	00000e+00	0
##	CSI045	0	0		0		0		0	0.00	00000e+00	0
##	CSI056	0	0		0		0		0	0.00	00000e+00	0
##	CSI066	0	0		0		0		0	0.00	00000e+00	0
##		Otu13041	Otu13042	Otu	13043	Otu1	13044	Otu:	13045		Otu13046	Otu13047
##	CSI002	0	0		0		0		0		00000e+00	0
##	CSI013	0	0		0		0		0		00000e+00	0
##	CSI023	0	0		0		0		0		00000e+00	0
##	CSI034	0	0		0		0		0	1.89	94908e-05	0

```
## CSI045
                            0
                                     0
                                                         0 0.00000e+00
## CST056
                                               0
                                                         0 0.000000e+00
                                                                                 0
                  0
                            0
                                     0
## CSI066
                  0
                            0
                                               0
                                                         0 0.000000e+00
##
          Otu13048
                                       Otu13050 Otu13051 Otu13052 Otu13053
                        Otu13049
## CST002
                  0 0.000000e+00 2.724387e-05
                                                        0
## CSI013
                  0 0.000000e+00 0.000000e+00
                                                        Λ
                                                                  0
                                                                            0
                  0 0.000000e+00 0.000000e+00
## CSI023
                                                        0
                                                                  0
                  0 3.789817e-05 0.000000e+00
## CSI034
                                                        0
                                                                  0
                                                                            0
  CSI045
                  0 0.000000e+00 0.000000e+00
                                                        0
                                                                  Ω
                                                                            0
                                                        Λ
                                                                  Λ
## CSI056
                  0 0.000000e+00 0.000000e+00
   CSI066
                  0 0.000000e+00 0.000000e+00
                                  Otu13056 Otu13057 Otu13058 Otu13059 Otu13060
##
          Otu13054 Otu13055
## CSI002
                  0
                            0 0.000000e+00
                                                    0
                                                             0
                                                                       0
## CSI013
                  0
                                                    0
                                                              0
                                                                                 0
                            0 0.00000e+00
                                                                       0
## CSI023
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                                 0
                                                                       0
## CSI034
                  0
                            0 0.00000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
                  0
                            0 0.000000e+00
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI045
## CSI056
                            0 0.00000e+00
                                                    0
                                                              0
                            0 3.833694e-05
                                                    0
                                                              0
##
  CST066
                  0
                                                                                 0
          Otu13061 Otu13062 Otu13063 Otu13064 Otu13065 Otu13066 Otu13067
## CSI002
                  Λ
                            Λ
                                      0
                                               Λ
                                                         Λ
                                                                   Ω
                                                                             0
## CSI013
                            0
                                      0
                                                         0
                                                                   0
                                                                             0
## CSI023
                            0
                  0
                                      0
                                               0
                                                         0
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                                                                             0
## CSI034
                  0
                            0
                                      0
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                                               0
## CSI045
                  0
                            0
                                      0
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## CSI056
                  0
                            0
                                      0
                                               0
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## CSI066
                  0
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                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
          Otu13068 Otu13069 Otu13070 Otu13071 Otu13072 Otu13073 Otu13074
## CSI002
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
                                                                             0
## CSI013
                  0
                            0
                                      0
                                               0
                                                         0
                                                                   0
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## CSI023
                  0
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                                                         0
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## CSI034
                  0
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                                      0
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## CSI045
                  0
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## CSI056
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                  0
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                                                                   0
                                                                             0
##
   CSI066
                            0
                                      0
                                               0
                                                         0
                                                                   0
##
               Otu13075 Otu13076 Otu13077 Otu13078 Otu13079 Otu13080 Otu13081
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
## CSI013 3.195807e-05
                                0
                                          0
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                                                                       0
                                                                                 0
## CSI023 0.000000e+00
                                0
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                                                                                 0
## CSI034 1.894908e-05
                                0
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                                                              Λ
                                                                       0
                                                                                 O
## CSI045 0.000000e+00
                                          0
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## CSI056 0.000000e+00
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                                          0
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                                                                       0
                                                                                 0
## CSI066 0.000000e+00
                                0
                                                    0
                                                              0
                                                                       0
                                                                                 0
          Otu13082 Otu13083 Otu13084
                                          Otu13085 Otu13086 Otu13087 Otu13088
##
                                     0 0.000000e+00
## CSI002
                  0
                            0
                                                              0
                                                                       0
## CSI013
                  0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
                                                                                 0
## CSI023
                  0
                            0
                                      0 0.00000e+00
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                                                                       0
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                  0
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## CSI034
                                      0 0.00000e+00
                                                                                 0
                                      0 0.000000e+00
## CSI045
                  0
                            0
                                                              0
                                                                       0
                                                                                 0
## CSI056
                  0
                            0
                                      0 0.00000e+00
                                                              0
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                                                                                 0
                            0
                                      0 0.000000e+00
                                                              0
                                                                       0
##
                  0
               Otu13089 Otu13090 Otu13091 Otu13092 Otu13093 Otu13094 Otu13095
## CSI002 0.000000e+00
                                0
                                          0
                                                    0
                                                              0
                                                                       0
                                                                                 0
## CSI013 0.000000e+00
                                0
                                          0
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                                                              0
                                                                       0
                                                                                 0
```

##	CST023	0.0000006	e+00	0	0	0	0	0	0	
##		0.0000000		0	0	0	0	0	0	
##		0.0000006		0	0	0	0	0	0	
##		3.918572		0	0	0	0	0	0	
##		0.0000006		0	0	0	0	0	0	
##		Otu13096	Otu13097	Otu13098	Otu13099	Otu13100	Otu13101		Otu13102	
##	CSI002	0	0	0	0	0			0000e+00	
##	CSI013	0	0	0	0	0	C		0000e+00	
##	CSI023	0	0	0	0	0	(		0000e+00	
##	CSI034	0	0	0	0	0	(		0000e+00	
##	CSI045	0	0	0	0	0	C		0000e+00	
##	CSI056	0	0	0	0	0	C	1.95	9286e-05	
##	CSI066	0	0	0	0	0	C	0.00	0000e+00	
##		Otu13103	Otu13104	Otu13105	Otu13106	Otu13107	Otu13108		Otu13109	
##	CSI002	0	0	0	0	0	C	0.00	0000e+00	
##	CSI013	0	0	0	0	0	C	6.39	1614e-05	
##	CSI023	0	0	0	0	0	C	0.00	0000e+00	
##	CSI034	0	0	0	0	0	C	0.00	0000e+00	
##	CSI045	0	0	0	0	0	C	0.00	0000e+00	
##	CSI056	0	0	0	0	0	C	0.00	0000e+00	
##	CSI066	0	0	0	0	0	C	0.00	0000e+00	
##		Otu13	3110 Otu13	3111 Otu13	3112 Otu13	3113 Otu13	3114 Otu1	3115	Otu13116	
##	CSI002	0.0000006	e+00	0	0	0	0	0	0	
##	CSI013	3.1958076	e-05	0	0	0	0	0	0	
##	CSI023	0.0000006	e+00	0	0	0	0	0	0	
##	CSI034	0.0000006	e+00	0	0	0	0	0	0	
##	CSI045	0.0000006	e+00	0	0	0	0	0	0	
##	CSI056	0.0000006	e+00	0	0	0	0	0	0	
##	CSI066	0.0000006	e+00	0	0	0	0	0	0	
##		Otu13117	Otu13118	Otu13119	Otu13120	Otu13121	Otu13122	0tu1	3123	
##	CSI002	0	0	0	0	0	C	)	0	
##	CSI013	0	0	0	0	0	C	)	0	
##	CSI023	0	0	0	0	0	C	)	0	
##	CSI034	0	0	0	0	0	C	)	0	
##	CSI045	0	0	0	0	0	C	)	0	
##	CSI056	0	0	0	0	0	C	)	0	
##	CSI066	0	0	0	0	0	C		0	
##			Otu13125	Otu13126				.3129	Otu13130	
	CSI002	0	0	0		0.0000006		0	0	
	CSI013	0	0	0		0.0000006		0	0	
	CSI023	0	0	0		0.0000006		0	0	
	CSI034	0	0	0		1.8949086		0	0	
	CSI045	0	0	0		0.0000006		0	0	
	CSI056	0	0	0		0.0000006		0	0	
	CSI066	0	0	0		0.0000006		0	0	
##	~~~~					Otu13135				
	CSI002	0	0	0	0	0	(		0	
	CSI013	0	0	0	0	0	(		0	
	CSI023	0	0	0	0	0	(		0	
	CSI034	0	0	0	0	0	(		0	
	CSI045	0	0	0	0	0	(		0	
	CSI056	0	0	0	0	0	(		0	
	CSI066	0+12120	0+12120	0+1	0	0	) 140 O+v1		0	
##		Otu13138	otu13139	Utul	oran oral	3141 Otu13	o142 Utul	3143	UCU13144	

```
## CSI002
                             0 0.00000e+00
                                                      0
                                                                0
                                                                          0
                                                                                     0
## CSI013
                   0
                             0 0.000000e+00
                                                      0
                                                                0
                                                                                     0
                                                                          0
## CSI023
                   0
                             0 0.00000e+00
                                                      0
                                                                0
                                                                          0
                                                                                     0
                                                                0
                                                                                     0
## CSI034
                   0
                               3.789817e-05
                                                      0
                                                                          0
                             0
## CSI045
                   0
                               0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                     0
## CSI056
                             0 0.000000e+00
                                                      0
                                                                0
                                                                          0
                                                                                     0
                   \cap
                             0 0.000000e+00
                                                      0
                                                                0
   CSI066
##
           Otu13145 Otu13146
                               Otu13147 Otu13148 Otu13149 Otu13150 Otu13151
## CSI002
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI013
                   0
                                       0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI034
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                       0
##
  CSI045
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
                             0
                                                 0
                                                                      0
## CSI056
                   0
                                       0
                                                            0
                                                                                0
## CSI066
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
           Otu13152
                     Otu13153
                               Otu13154 Otu13155 Otu13156 Otu13157
                                                                        0tu13158
## CSI002
                                                            0
                   0
                             0
                                       0
                                                 0
                                                                      0
                                                                                0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI023
                   0
                             0
                                                 0
                                                            0
                                                                      0
                                                                                0
                                       0
## CSI034
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI045
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI056
                             0
                                                                                0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
## CST066
                   0
                                                                                0
           Otu13159
                     Otu13160 Otu13161 Otu13162 Otu13163 Otu13164 Otu13165
##
## CSI002
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI013
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI034
                             0
                                                 0
                                                            0
                                                                      0
                   0
                                       0
                                                                                0
## CSI045
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI056
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
## CSI066
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0
                                                                                0
##
           Otu13166 Otu13167 Otu13168 Otu13169 Otu13170 Otu13171
                                                                             Otu13172
## CSI002
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.00000e+00
## CSI013
                             0
                                                            0
                                                                      0 6.391614e-05
                   0
                                       0
                                                 0
## CSI023
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.00000e+00
## CSI034
                   0
                             0
                                                 0
                                                            0
                                                                      0 0.000000e+00
                                       0
## CSI045
                   0
                             0
                                                 0
                                                            0
                                                                      0 0.00000e+00
## CSI056
                   0
                             0
                                       0
                                                 0
                                                            0
                                                                      0 0.000000e+00
  CSI066
                             0
                                       0
                                                 0
                                                                      0 0.000000e+00
##
                                                             Otu13177 Otu13178
##
               Otu13173 Otu13174 Otu13175 Otu13176
## CSI002 0.000000e+00
                                            0
                                                      0 0.000000e+00
                                 0
## CSI013 0.000000e+00
                                 0
                                            0
                                                      0 0.00000e+00
                                                                               0
   CSI023 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                 0
                                                                               0
                                 0
                                            0
   CSI034 0.000000e+00
                                                      0 0.00000e+00
                                                                               Λ
   CSI045 0.000000e+00
                                 0
                                            0
                                                      0 0.000000e+00
## CSI056 1.959286e-05
                                 0
                                            0
                                                      0 0.000000e+00
                                                                               0
                                 0
##
   CSI066 0.000000e+00
                                            0
                                                      0 0.00000e+00
                                                                               0
##
           Otu13179 Otu13180 Otu13181 Otu13182
                                                        Otu13183 Otu13184 Otu13185
## CSI002
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
## CSI013
                   0
                             0
                                       0
                                                 0 6.391614e-05
                                                                          0
                                                                                     0
## CSI023
                   0
                             0
                                       0
                                                 0 0.000000e+00
                                                                          0
                                                                                     0
## CSI034
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
## CSI045
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
## CSI056
                   0
                             0
                                       0
                                                 0 0.00000e+00
                                                                          0
                                                                                     0
```

##	CSI066	0	0	0		0	0.00	00000	e+00		0		0
##		Otu13186	0tu13	187 Otu13	3188 O	tu13	3189	(	)tu13	190	Otu13	3191	
##	CSI002	0.000000e+00	)	0	0		0	0.000	0000e	+00		0	
##	CSI013	0.000000e+00	)	0	0		0	0.000	0000e	+00		0	
##	CSI023	0.000000e+00	)	0	0		0	0.000	0000e	+00		0	
##	CSI034	0.000000e+00	)	0	0		0	1.894	1908e	-05		0	
##		6.530186e-05		0	0		0	0.000	0000e	+00		0	
##		0.000000e+00		0	0		0	0.000	0000e	+00		0	
##	CSI066	0.000000e+00		0	0			0.000				0	
##		Otu13192 Otu			Otu13		Otu1		Otu1		Otu1		
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056 CSI066	0	0	0		0		0		0		0	
##	CSTOOO	-	•	0tu13201	Ω+ <sub>11</sub> 139	-	Ω+111	13203	Ω±111	-	Ω+111	•	
##	CSI002	0	0	000013201	Utu15.	0	ocui	0	ocui	.5204	ocui	.5205	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##		Otu13206 Otu	13207	0tu13208	Otu13	209	Otu1	13210	Otu1	3211	Otu1	3212	
##	CSI002	0	0	0		0		0		0		0	
##	CSI013	0	0	0		0		0		0		0	
##	CSI023	0	0	0		0		0		0		0	
##	CSI034	0	0	0		0		0		0		0	
##	CSI045	0	0	0		0		0		0		0	
##	CSI056	0	0	0		0		0		0		0	
##	CSI066	0	0	0		0		0		0		0	
##				0tu13215	Otu13:			Otu13		Otu1		Otu132	219
##	CSI002	0	0	0				00000			0		0
##	CSI013	0	0	0		0		00000			0		0
##	CSI023	0	0	0		0		00000			0		0
	CS1034	0	0	0				)0000e			0		0
##	CSI045 CSI056	0	0	0				00000€			0		0
##	CS1056	0	0	0				33694			0		0
##	CDICCO	Otu13220 Oti	-	_	3222 N					Ω±111	-	Otu132	•
	CSI002	0		0.000000		ouic	0	Outi	0	ocur.	0	004102	0
##	CSI013	0		6.391614e			0		0		0		0
##	CSI023	0		0.0000006			0		0		0		0
##	CSI034	0		0.0000006			0		0		0		0
##	CSI045	0		0.0000006			0		0		0		0
##	CSI056	0		0.0000006			0		0		0		0
##	CSI066	0		0.000000			0		0		0		0
##		Otu13227 Otu	13228 (	Otu13229	Otu13	230	Otu1	13231		Otu1	3232	Otu132	233
##	CSI002	0	0	0		0		0	0.00	0000	e+00		0
##	CSI013	0	0	0		0		0	0.00	0000	e+00		0
	CSI023	0	0	0		0		0	0.00	0000	e+00		0
##	CSI034	0	0	0		0		0	3.78	9817	e-05		0

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##	CSI045	0	0	0	0	0	0.0000000		0
##	CSI056	0	0	0	0	0	0.000000		0
##	CSI066	0 Otu13234	0 0tu13235	0 Otu13236	0 0tu13237	0 Otu13238	0.0000000 Otu13239	e+00 Otu13	·
##	CSI002	00013234	00013233	0 0 0	0 0 0	0 0 0	00013239		
##	CSI002	0	0	0	0	0	0	0.000000e	
##	CSI023	0	0	0	0	0	0	0.000000e	
##	CSI034	0	0	0	0	0	0	0.000000e	
##	CSI045	0	0	0	0	0	0	0.000000e	+00
##	CSI056	0	0	0	0	0	0	0.000000e	+00
##	CSI066	0	0	0	0	0	0	0.000000e	+00
##		Otu13241	Otu13242	Otu13243	Otu13244	Otu13	3245 Otu13	3246 Otu13	247
##	CSI002	0	0	0	0	0.0000006	e+00	0	0
##	CSI013	0	0	0	0	0.0000006	e+00	0	0
##	CSI023	0	0	0	0	0.0000006	e+00	0	0
##	CSI034	0	0	0	0	0.0000006	e+00	0	0
##	CSI045	0	0	0	0	0.0000006		0	0
##	CSI056	0	0	0	0	3.918572		0	0
##	CSI066	0	0	0	0	0.0000006		0	0
##	gg T o o o	Otu13248	Otu13249	Otu13250	Otu13251		Otu13253		
##	CSI002 CSI013	0	0	0	0	0	0	0	
##	CSI013	0	0	0	0	0	0	0	
##	CSI023	0	0	0	0	0	0	0	
##	CSI045	0	0	0	0	0	0	0	
##	CSI056	0	0	0	0	0	0	0	
##	CSI066	0	0	0	0	0	0	0	
##		Otu13255	Otu13256	Otu13257	Otu13258	Otu13259	Otu13260	Otu13261	
##	COTOO								
	CSI002	0	0	0	0	0	0	0	
##	CS1002 CSI013	0	0	0	0	0	0	0	
## ##									
	CSI013	0	0	0	0	0	0	0	
##	CSI013 CSI023 CSI034 CSI045	0	0	0	0	0	0	0	
## ##	CSI013 CSI023 CSI034 CSI045 CSI056	0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0	0 0	
## ## ## ##	CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	
## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0tu13264	0 0 0 0 0 0 0 0tu13265	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	
## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0 0 0tu13262	0 0 0 0 0 0 0 0 0tu13263	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13265	0 0 0 0 0 0 0 0 0 0tu13266	0 0 0 0 0 0 0 0tu13267	0 0 0 0 0 0 0 0 0 0 0 0 0	
## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013	0 0 0 0 0 0 0tu13262 0	0 0 0 0 0 0 0tu13263 0	0 0 0 0 0 0 0tu13264 0	0 0 0 0 0 0 0tu13265 0	0 0 0 0 0 0 0tu13266 0	0 0 0 0 0 0 0tu13267 0	0 0 0 0 0 0 0 0tu13268 0	
## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023	0 0 0 0 0 0 0tu13262 0 0	0 0 0 0 0 0 0tu13263 0 0	0 0 0 0 0 0 0tu13264 0 0	0 0 0 0 0 0 0tu13265 0 0	0 0 0 0 0 0 0tu13266 0 0	0 0 0 0 0 0 0tu13267 0 0	0 0 0 0 0 0 0 0tu13268 0 0	
## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034	0 0 0 0 0 0 0 0tu13262 0 0	0 0 0 0 0 0 0tu13263 0 0	0 0 0 0 0 0 0 0tu13264 0 0	0 0 0 0 0 0 0tu13265 0 0	0 0 0 0 0 0 0tu13266 0 0	0 0 0 0 0 0 0 0tu13267 0 0	0 0 0 0 0 0 0 0tu13268 0 0	
## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0 0tu13262 0 0 0	0 0 0 0 0 0 0 0tu13263 0 0 0	0 0 0 0 0 0 0 0tu13264 0 0 0	0 0 0 0 0 0 0 0tu13265 0 0 0	0 0 0 0 0 0 0 0tu13266 0 0 0	0 0 0 0 0 0 0 0tu13267 0 0	0 0 0 0 0 0 0 0tu13268 0 0 0	
## ## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI006 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0 0 0 0 0tul3262 0 0 0	0 0 0 0 0 0 0 0tul3263 0 0 0	0 0 0 0 0 0 0 0tu13264 0 0	0 0 0 0 0 0 0tu13265 0 0	0 0 0 0 0 0 0 0tu13266 0 0 0	0 0 0 0 0 0 0 0tu13267 0 0	0 0 0 0 0 0 0 0tu13268 0 0	
## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045	0 0 0 0 0 0 0 0tul3262 0 0 0	0 0 0 0 0 0 0 0tu13263 0 0 0	0 0 0 0 0 0 0 0tul3264 0 0 0 0	0 0 0 0 0 0 0 0tul3265 0 0 0	0 0 0 0 0 0 0 0tu13266 0 0	0 0 0 0 0 0 0 0tul3267 0 0 0	0 0 0 0 0 0 0 0tul3268 0 0 0	
## ## ## ## ## ## ## ## ## ## ## ## ##	CSI013 CSI023 CSI034 CSI045 CSI056 CSI006 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056	0 0 0 0 0 0 0 0tul3262 0 0 0	0 0 0 0 0 0 0tul3263 0 0 0 0	0 0 0 0 0 0 0tul3264 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tul3265 0 0 0	0 0 0 0 0 0tu13266 0 0 0 0 0	0 0 0 0 0 0 0tu13267 0 0 0 0 0	0 0 0 0 0 0 0 0tul3268 0 0 0 0	
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0tul3262 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu13263 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu13264 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu13265 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13268 0 0 0 0 0 0	
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI006 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066	0 0 0 0 0 0 0tu13262 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu13263 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0tu13264 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013	0 0 0 0 0 0 0tu13262 0 0 0 0 0 0tu13269 0	0 0 0 0 0 0 0tu13263 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
######################################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13263 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
######################################	CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI006 CSI002 CSI013 CSI002 CSI013 CSI002 CSI013 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13264 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
#########################	CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI006 CSI002 CSI013 CSI002 CSI013 CSI002 CSI013	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13263 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13264 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
#########################	CSI013 CSI023 CSI034 CSI045 CSI056 CSI066 CSI002 CSI013 CSI034 CSI056 CSI006 CSI002 CSI013 CSI002 CSI013 CSI0056 CSI006	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
######################################	CSI013 CSI023 CSI034 CSI056 CSI066 CSI002 CSI013 CSI023 CSI034 CSI056 CSI006 CSI002 CSI013 CSI002 CSI013 CSI002 CSI013 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005 CSI005	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13263 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0tu13264 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##	aa tooo		Otu13283	Otu13284		Otu13286		
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##	CCTOO	Otu13289					3293 Otu1	
##	CSI002	0		0.000000		0	0	0 0
##	CSI013 CSI023	0	0	0.000000		0	0	0 0
##	CSI023	0	0	3.789817		0	0	0 0
##	CSI034	0	0	0.000000		0	0	0 0
##	CSI045	0	0	0.0000000		0	0	0 0
##	CSI066	0	0	0.0000000		0	0	0 0
##	ODIOOO	-	Otu13297		Otu13299	•	-	Otu13302
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu13303	Otu13304	Otu13305	Otu13306	Otu13307	Otu13308	Otu13309
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##				Otu13312	Otu13313		Otu13315	Otu13316
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045 CSI056	0	0	0	0	0	0	0
	CS1056	0	0	0	0	0	0	0
##	CDIOOO	_		Otu13319			Otu13322	-
	CSI002	00013317	0	0000000	0	00013321	0 0 0 0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045	0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu13324	Otu13325	Otu13326	Otu13327	Otu13328	Otu13329	Otu13330

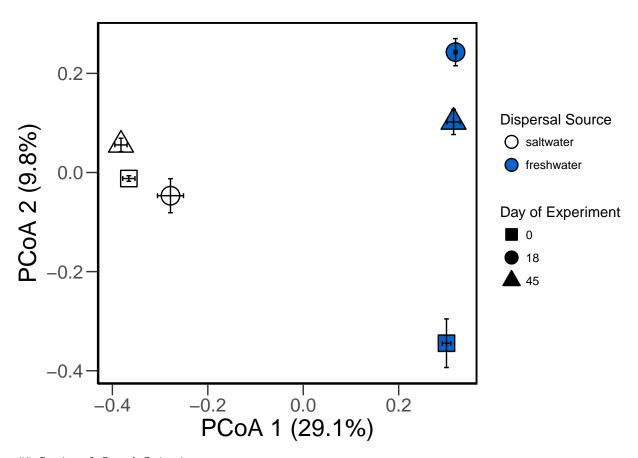
шш	aa tooo	0	•	0	0		0		^	0 00	0000-100	
	CSI002	0	0	0	0		0				00000e+00	
	CSI013	0	0	0	0		0		_		00000e+00	
##	CSI023	0	0	0	0		0		0		00000e+00	
##	CSI034	0	0	0	0		0		0		94908e-05	
##	CSI045	0	0	0	0		0		0		0000e+00	
##	CSI056	0	0	0	0		0		0		00000e+00	
##	CSI066	0	0	0	0		0		0		00000e+00	)
##		Otu13331	Otu13332	Otu13333	Otu13334	Otu1	.3335	Otu1	13336	Otu1	13337	
##	CSI002	0	0	0	0		0		0		0	
##	CSI013	0	0	0	0		0		0		0	
##	CSI023	0	0	0	0		0		0		0	
##	CSI034	0	0	0	0		0		0		0	
##	CSI045	0	0	0	0		0		0		0	
##	CSI056	0	0	0	0		0		0		0	
##	CSI066	0	0	0	0		0		0		0	
##		Otu13338	Otu13	3339 Otu13	3340 Otu13	3341	Otu13	342	(	)tu13	3343	
##	CSI002	0	1.362194	e-05	0	0		0	1.362	2194	e-05	
##	CSI013	0	0.0000006	e+00	0	0		0	0.000	0000	e+00	
##	CSI023	0	0.0000006	e+00	0	0		0	0.000	0000	e+00	
##	CSI034	0	0.0000006	e+00	0	0		0	0.000	0000	e+00	
##	CSI045	0	0.0000006	e+00	0	0		0	0.000	0000	e+00	
##	CSI056	0	0.0000006		0	0			0.000			
##	CSI066	0	0.0000006		0	0			0.000			
##	001000	•			Otu13347	-	3348					
	CSI002	0	0	0	0	ouai	0	oou	0	o o u .	0	
##	CSI013	0	0	0	0		0		0		0	
##	CSI013	0	0	0	0		0		0		0	
##	CSI034	0	0	0	0		0		0		0	
##	CSI045	0	0	0	0		0		0		0	
##	CSI045	0	0	0	0		0		0		0	
##	CSI066	0	0	0	0		0		0		0	
##	CDIOOO	Otu13351	Otu13352	-	Otu13	2251	•	+1112	3355 (	1+111	•	
##	CSI002	0.0013331	0 0 0		0.0000006					Juli		
				0							0	
##	CSI013	0	0	0	0.0000006						0	
##	CSI023 CSI034	0	0	0	1.8949086						0	
##		0	0	0							0	
##	CSI045	0	0	0	0.000000						0	
	CSI056	0	0		0.0000006						0	
	CSI066	0 40057	0		0.0000006					2000	0	
##	aa tooo		Otu13358						Utula		Otu13363	
##	CSI002	0	0	0			32194e			0	C	
	CSI013	0	0	0			0000e			0	C	
	CSI023	0	0	0			0000e			0	C	
##	CSI034	0	0	0			0000e			0	C	
##	CSI045	0	0	0			0000e			0	C	
##	CSI056	0	0	0			0000e			0	C	)
##	CSI066	0	0	0	0		0000e			0	C	-
##		Otu13364			3366 Otu13		Otu13		Otu13		Otu13370	)
##	CSI002	0		0.0000006		0		0		0	C	)
##	CSI013	0		0.0000006		0		0		0	C	)
##	CSI023	0		0.0000006		0		0		0	C	)
##	CSI034	0	0	0.0000006	e+00	0		0		0	C	)
##	CSI045	0	0	0.0000006	e+00	0		0		0	C	)
##	CSI056	0	0	0.000000	e+00	0		0		0	C	)

##	CSI066	0	0	0.0000006	<b>2</b> +00	0	0	0 0
##	ODIOOO		Otu13372		Otu13374		•	Otu13377
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu13378	Otu13379	Otu13380	Otu13381	Otu13382	Otu13383	Otu13384
##	CSI002	0	0	0	0	0	0	0.000000e+00
##	CSI013	0	0	0	0	0	0	0.000000e+00
##	CSI023	0	0	0	0	0	0	0.000000e+00
##	CSI034	0	0	0	0	0	0	0.000000e+00
##	CSI045	0	0	0	0	0	0	0.000000e+00
##	CSI056	0	0	0	0	0	0	0.000000e+00
##	CSI066	0	0	0	0	0	0	0.00000e+00
##	~~~~	Otu13385	Otu13386	Otu13387	Otu13388	Otu13389	Otu13390	
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034 CSI045	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##	CDIOOO	Otu13392	Otu13393	Otu13394	Otu13395	Otu13396	Otu13397	Otu13398
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
##	CSI034	0	0	0	0	0	0	0
##	CSI045	0	0	0	0	0	0	0
##	CSI056	0	0	0	0	0	0	0
##	CSI066	0	0	0	0	0	0	0
##		Otu13399	Otu13400	Otu13401	Otu13402	Otu13403	Otu13404	Otu13405
##	CSI002	0	0	0	0	0	0	0
##	CSI013	0	0	0	0	0	0	0
##	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045	0	0	0	0	0	0	0
	CSI056	0	0	0	0	0	0	0
	CSI066	0	0	0	0	0	0	0
##	~~~~		Otu13407					
	CSI002	0	0	0	0	0	0	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0
	CSI045 CSI056	0	0	0	0	0	0	0
	CS1056	0	0	0	0	0	0	0
##	001000	-	Otu13414	-	-	-	-	-
	CSI002	00013413	0	00013413	01410410	0	0.0013410	0
	CSI013	0	0	0	0	0	0	0
	CSI023	0	0	0	0	0	0	0
	CSI034	0	0	0	0	0	0	0

```
## CSI045
                 0
                           0
                                    0
                                                                           0
## CSI056
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI066
                  0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
          Otu13420 Otu13421 Otu13422 Otu13423 Otu13424 Otu13425 Otu13426
##
## CSI002
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
## CSI013
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI023
                 0
                           0
                                     0
                                              0
                                                        0
                                                                           0
## CSI034
                                                        0
                                                                 0
                 0
                           0
                                     0
                                              0
                                                                           0
## CSI045
                 0
                           0
                                     0
                                              0
                                                        0
                                                                           0
## CSI056
                  0
                           0
                                     0
                                              0
                                                                 0
                                                                           0
## CSI066
                  0
                           0
                                     0
                                              0
                                                        0
          Otu13427 Otu13428 Otu13429 Otu13430 Otu13431 Otu13432 Otu13433
## CSI002
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
                                              0
                                                                 0
## CSI013
                  0
                           0
                                     0
                                                        0
                                                                           0
## CSI023
                 0
                           0
                                     0
                                              0
                                                        0
                                                                 0
                                                                           0
## CSI034
                 0
                           0
                                     0
                                              0
                                                        0
                                                                           0
## CSI045
                 0
                           0
                                    0
                                              0
                                                        0
                                                                 0
                                                                          0
                                              0
                                                        0
## CSI056
                           0
                                                                 0
                                                                          0
## CSI066
                  0
                           0
                                                        0
                                                                          0
              Otu13434 Otu13435
## CSI002 0.000000e+00
## CSI013 0.000000e+00
## CSI023 4.082049e-05
                               0
## CSI034 0.000000e+00
                               0
## CSI045 0.000000e+00
## CSI056 0.000000e+00
## CSI066 0.000000e+00
                               0
   [ reached getOption("max.print") -- omitted 5 rows ]
##
## Call:
## adonis(formula = csi.relabun.full2[, -c(1:8)] ~ Date * Dispersal * Salinity, data = csi.relabun
## Permutation: free
## Number of permutations: 1000
##
## Terms added sequentially (first to last)
##
                  Df SumsOfSqs MeanSqs F.Model
                                                      R2
                                                            Pr(>F)
                         1.1325 0.56623 2.4905 0.13309 0.002997 **
## Date
                    2
                         2.4421 2.44205 10.7410 0.28701 0.000999 ***
## Dispersal
                    1
## Date:Dispersal 2
                         1.0691 0.53455 2.3512 0.12565 0.005994 **
## Residuals
                   17
                         3.8651 0.22736
                                                 0.45425
## Total
                  22
                         8.5087
                                                 1.00000
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## [1] 29.1
## [1] 9.8
```

## PCoA plot sources only

## PLOT GGPLOT sources only



## Saving  $6.5 \times 4.5$  in image

## PCoA set up WITH source tanks

PCoA plot design WITH SOURCE TANKS - by date  $\mathbf x$  dispersal type

PLOT GGPLOT WITH SOURCE TANKS + treatment tanks date x dispersal type

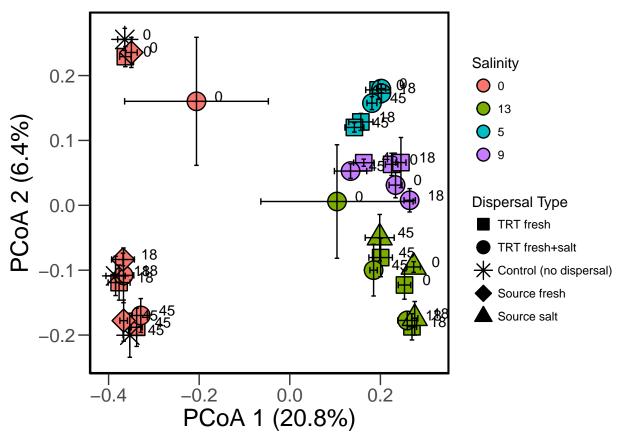
PCoA set up WITH source tanks All data - need to get Day to be labeled on symbol

```
##
## Call:
## adonis(formula = csi.relabun.full[, -c(1:8)] ~ Date * Dispersal * Salinity, data = csi.relabun.
```

```
##
## Permutation: free
## Number of permutations: 1000
## Terms added sequentially (first to last)
##
##
                           Df SumsOfSqs MeanSqs F.Model
                                                            R2
                                                                  Pr(>F)
                                  3.474 1.7372 5.9927 0.07170 0.000999 ***
## Date
                                  5.441 1.3602 4.6924 0.11228 0.000999 ***
## Dispersal
                            4
                                  3.891 3.8908 13.4217 0.08029 0.000999 ***
## Salinity
                            1
## Date:Dispersal
                            8
                                  2.905  0.3631  1.2527  0.05995  0.023976 *
## Date:Salinity
                            2
                                  1.545 0.7723 2.6643 0.03188 0.000999 ***
## Dispersal:Salinity
                            1
                                  0.299 0.2992 1.0320 0.00617 0.362637
## Date:Dispersal:Salinity
                            2
                                  0.466 0.2331 0.8041 0.00962 0.837163
## Residuals
                          105
                                 30.438 0.2899
                                                        0.62811
## Total
                          125
                                 48.459
                                                        1.00000
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## [1] 20.8
## [1] 6.4
```

PCoA plot design WITH SOURCE TANKS All data - need to get Day to be labeled on symbol

PLOT GGPLOT WITH SOURCE TANKS All data - need to get Day to be labeled on symbol #unsure how to overlay DATE on points



## Saving 6.5 x 4.5 in image

## **Indicator Species Analysis**

- (5) Which bacterial taxa are driving bacterial community patterns in response to salinity only? Subset data (run without source tanks) Bray-Curtis dissimilarity matrix for bacterial community Run Species Indicator Analysis see IL\_Wetlands.Rmd file Create Table for Supplemental (includes all taxa and associated taxon contribution to bacterial response) Create subset in table format to highlight top 5-10 OTUs (with names) for each salinity tank type (or by whatever groupings seem interesting) See AP's IL Wetlands paper
- (6) Is there a relationship between community composition and litter decomposition rates? (Date2=45 only) Subset data source tanks only Euclidean distance for leaf litter decomposition Bray-Curtis dissimilarity matrix for bacterial community Run matrix comparison using Mantel test

Subset data - experimental (all data but source) tanks Euclidean distance for leaf litter decomposition Bray-Curtis dissimilarity matrix for bacterial community Run matrix comparison using Mantel test

Run Redundancy Analysis to include litter decomp AND C min Model: bacterial community~litter decomp1+decomp3+Cmin

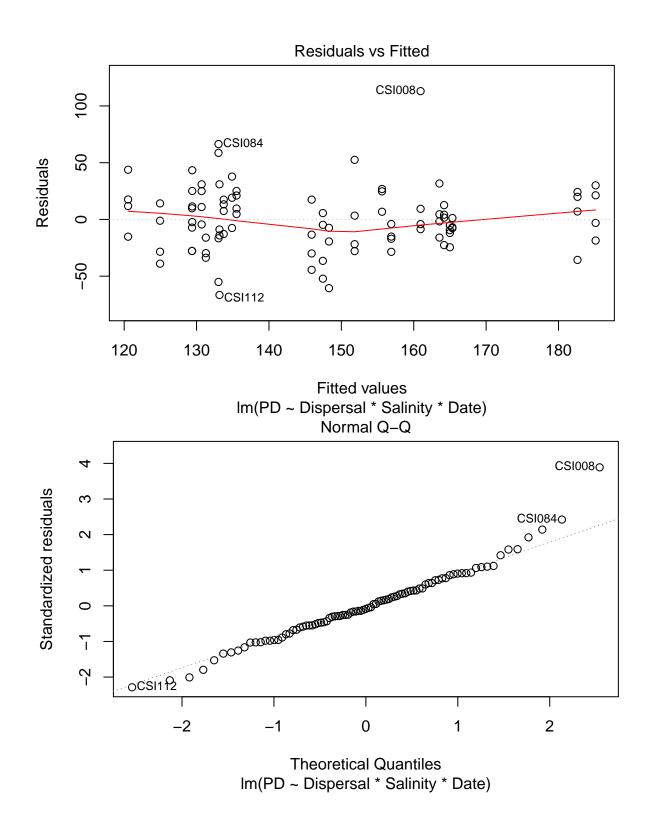
#Is there a relationship between bacterial community composition and decomposition rate? used matrix comstr(csi.full.ns.Cmin)

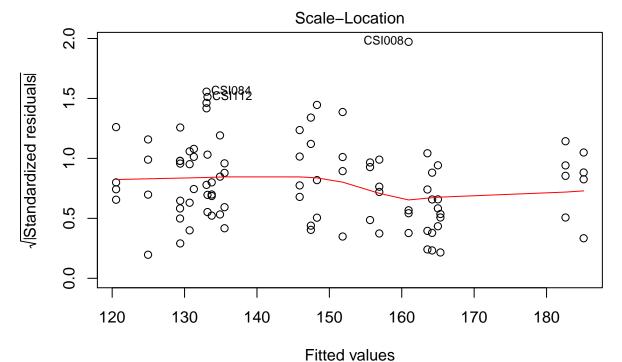
```
## 'data.frame':
                   31 obs. of 13451 variables:
## $ Field ID
                   : int 224 225 226 227 228 229 230 231 235 236 ...
## $ Date
                   : Factor w/ 3 levels "6/11/15", "6/29/15",...: 3 3 3 3 3 3 3 3 3 3 ...
## $ Date2
                   : int 45 45 45 45 45 45 45 45 45 ...
## $ Replicate
                   : Factor w/ 4 levels "A", "B", "C", "D": 1 1 1 1 1 1 1 2 2 ...
  $ Treatment
                   : int 4 5 6 7 8 9 10 11 4 5 ...
##
##
   $ Dispersal
                   : int 3 2 3 2 3 2 3 2 3 2 ...
## $ Salinity
                    : int 055991313005...
## $ Salinity_real : num
                          0.53 4.33 4.51 7.77 8.54 ...
## $ NH4um
                          1.09 1.77 1.59 1.73 1.41 1.04 1.18 1.14 1.24 1.27 ...
                    : num
   $ NO3um
##
                   : num
                          0 0 0 0 0.54 0 0 0 0 0 ...
##
  $ P04um
                          0 0 0 0 0 0 0.08 0.11 0 0 ...
                    : num
##
   $ Maple_dmass
                          2.66 2.19 2.04 1.28 1.39 1.07 2.23 2.52 1.7 1.85 ...
                   : num
##
   $ Spartina_dmass: num
                          2.7 1.56 1.82 1.14 0.47 0.83 1.66 1.85 1.75 1.93 ...
## $ Phrag_dmass
                   : num
                          8.25 5.03 5.01 5.2 4.01 0.79 5.48 5.2 5.17 6.52 ...
## $ Cmin
                    : num
                          46.7 15.1 55 155.2 0 ...
## $ Sample..
                   : Factor w/ 31 levels "A_10_11JUN15",..: 3 4 5 6 7 8 1 2 11 12 ...
##
   $ Otu00001
                   : num
                          0.000155 0.003197 0.041096 0.044183 0.001123 ...
## $ Otu00002
                   : num 5.56e-03 2.76e-05 9.58e-05 0.00 1.84e-05 ...
## $ Otu00003
                   : num
                         4.43e-05 8.91e-02 1.31e-02 1.99e-02 5.52e-05
## $ Otu00004
                          2.22e-05 0.00 1.12e-01 3.36e-02 3.68e-05 ...
                   : num
## $ Otu00005
                   : num 0 0.0597 0.0484 0.1208 0.0148 ...
## $ Otu00006
                   : num 0.0002 0.0051 0.00752 0.02378 0.03237 ...
## $ Otu00007
                          9.12e-02 8.27e-05 0.00 8.57e-04 0.00 ...
                   : num
## $ Otu00008
                   : num
                          6.02e-02 5.51e-05 2.40e-05 0.00 1.84e-05 ...
##
   $ Otu00009
                   : num
                          9.02e-03 8.27e-05 4.55e-04 4.10e-02 1.10e-04 ...
## $ Otu00010
                          8.87e-05 0.00 0.00 0.00 0.00 ...
                   : num
## $ Otu00011
                          0.00 2.32e-03 2.28e-03 1.12e-02 5.52e-05 ...
                   : num
                          2.22e-05 3.05e-02 1.75e-03 5.70e-03 1.11e-02 ...
## $ Otu00012
                   : num
##
   $ Otu00013
                   : num
                          1.71e-02 2.76e-05 0.00 2.14e-05 5.52e-05 ...
## $ Otu00014
                          2.22e-05 0.00 4.74e-03 4.29e-05 0.00 ...
                   : num
## $ Otu00015
                   : num
                          0.00 5.36e-02 5.66e-02 4.42e-02 7.37e-05 ...
## $ Otu00016
                          0.00 2.76e-05 0.00 8.57e-05 4.31e-01 ...
                   : num
##
   $ Otu00017
                          6.07e-03 2.76e-05 0.00 0.00 0.00 ...
                   : num
                          4.43e-05 5.51e-05 0.00 2.14e-04 1.84e-05 ...
## $ Otu00018
                   : num
## $ Otu00019
                   : num
                          0.001108 0.014167 0.004984 0.013263 0.000331 ...
## $ Otu00020
                   : num
                          6.65e-05 5.51e-05 0.00 2.14e-05 5.52e-05 ...
## $ Otu00021
                          2.22e-05 3.28e-02 1.04e-01 2.08e-01 1.84e-05 ...
                   : num
## $ Otu00022
                          0 0.000441 0.000455 0.017377 0.000608 ...
                   : num
## $ Otu00023
                          2.22e-05 3.03e-04 1.27e-03 8.57e-05 3.68e-05 ...
                   : num
## $ Otu00024
                   : num
                          1.11e-04 0.00 8.22e-02 1.11e-02 1.84e-05 ...
## $ Otu00025
                          0.00 9.12e-03 3.86e-03 4.29e-05 1.84e-05 ...
                   : num
##
  $ Otu00026
                   : num
                          1.33e-04 0.00 4.42e-02 2.94e-02 1.84e-05 ...
## $ Otu00027
                          0.00 1.93e-04 6.71e-03 2.14e-04 7.37e-05 ...
                   : num
   $ Otu00028
                          6.65e-05 9.54e-03 2.01e-03 8.79e-04 5.52e-05 ...
##
                   : num
## $ Otu00029
                    : num
                          0 0.026046 0 0.000107 0.000166 ...
## $ Otu00030
                          1.77e-04 0.00 4.79e-05 2.14e-05 0.00 ...
                   : num
                          0.00288 0 0 0 0 ...
## $ Otu00031
                   : num
## $ Otu00032
                   : num 2.22e-05 0.00 0.00 0.00 0.00 ...
```

```
$ Otu00033
                           0.00 0.00 0.00 2.14e-05 1.84e-05 ...
                    : num
##
   $ Otu00034
                           0 0 0 0.00171 0 ...
                    : num
##
   $ Otu00035
                    : num
                           2.22e-05 0.00 0.00 4.29e-05 0.00 ...
                           2.22e-05 0.00 0.00 0.00 0.00 ...
##
  $ Otu00036
                    : num
##
   $ Otu00037
                    : num
                           00000...
##
   $ Otu00038
                           0 0 0.01924 0.00609 0 ...
                    : num
   $ Otu00039
                           0.00 0.00 0.00 2.14e-05 0.00 ...
                    : num
##
                           0.006118 0.010501 0.028419 0.000836 0.001197 ...
   $ Otu00040
                    : num
##
   $ Otu00041
                    : num
                           2.22e-05 1.38e-04 7.19e-05 6.43e-04 0.00 ...
##
                           5.32e-03 1.10e-04 7.19e-04 2.14e-05 0.00 ...
   $ Otu00042
                    : num
   $ Otu00043
                    : num
                           2.00e-04 2.15e-03 2.16e-04 2.14e-05 7.00e-04 ...
                           0.00 3.14e-02 4.79e-05 1.84e-03 0.00 ...
##
   $ Otu00044
                    : num
##
   $ Otu00045
                           0.00 0.00 4.79e-05 0.00 0.00 ...
                    : num
## $ Otu00046
                           0.00 0.00 0.00 1.86e-02 1.84e-05 ...
                    : num
## $ Otu00047
                           0.00 2.76e-05 1.15e-02 4.63e-02 0.00 ...
                    : num
##
   $ Otu00048
                           0.00 2.76e-05 0.00 0.00 0.00 ...
                    : num
##
   $ Otu00049
                           0.0014 0 0 0 0 ...
                    : num
##
  $ Otu00050
                           0.000842 0.000882 0.00012 0.000107 0.000129 ...
                    : num
##
  $ Otu00051
                           2.22e-05 0.00 0.00 0.00 0.00 ...
                    : num
## $ Otu00052
                    : num
                           0.000133 0 0 0 0 ...
## $ Otu00053
                    : num
                           0 0.000551 0.000312 0.000129 0.017181 ...
## $ Otu00054
                           2.44e-04 2.76e-05 7.19e-05 2.14e-05 7.37e-05 ...
                    : num
##
   $ Otu00055
                           0.00 1.57e-03 2.68e-03 6.21e-04 3.68e-05 ...
                    : num
   $ Otu00056
                           4.43e-05 1.38e-04 0.00 0.00 0.00 ...
##
                    : num
## $ Otu00057
                           0.00 2.16e-02 7.31e-03 8.57e-05 1.10e-04 ...
                    : num
  $ Otu00058
                    : num
                           0.00 2.76e-05 4.79e-05 3.70e-02 1.84e-05 ...
##
   $ Otu00059
                           8.87e-04 4.71e-03 7.00e-03 2.14e-05 0.00 ...
                    : num
   $ Otu00060
                           0.000155 0 0 0 0 ...
##
                    : num
## $ Otu00061
                           0.0136 0 0 0 0 ...
                    : num
  $ Otu00062
                           0 0 0 0 0 0 0 0 0 0 ...
                    : num
##
   $ Otu00063
                    : num
                           0 0.000193 0 0 0 ...
##
   $ Otu00064
                    : num
                           0.00 5.51e-05 1.41e-03 8.36e-04 4.79e-04 ...
##
  $ Otu00065
                           0 0 0.00556 0 0 ...
                    : num
## $ Otu00066
                           0.000244 0.017695 0.003546 0.007028 0 ...
                    : num
##
   $ Otu00067
                           0.00 0.00 0.00 8.57e-05 5.52e-05 ...
                    : num
##
   $ Otu00068
                           0 0 0 0 0.000368 ...
                    : num
                           6.94e-02 2.76e-05 0.00 2.14e-05 0.00 ...
## $ Otu00069
                    : num
  $ Otu00070
##
                    : num
                           0.000421 0 0 0 0 ...
##
   $ Otu00071
                           8.87e-05 4.91e-03 5.75e-04 6.43e-05 6.91e-03 ...
                    : num
##
  $ Otu00072
                           0 0.001351 0.001078 0.000236 0.009428 ...
                    : num
##
  $ Otu00073
                           0 0.000193 0.002396 0.000321 0.000921 ...
                    : num
## $ Otu00074
                           00000...
                    : num
   $ Otu00075
##
                    : num
                           0 0 0 0 0 ...
## $ Otu00076
                           2.22e-05 0.00 0.00 0.00 0.00 ...
                    : num
   $ Otu00077
                           4.43e-05 1.77e-02 4.96e-03 3.00e-04 3.68e-05 ...
                    : num
                           0 0.00011 0.000719 0.000214 0.128241 ...
##
   $ Otu00078
                    : num
##
   $ Otu00079
                    : num
                           0.108 0 0 0 0 ...
##
                           0 0.027755 0.002612 0.000214 0.000276 ...
   $ Otu00080
                    : num
##
   $ Otu00081
                    : num
                           0 0 0 0 0 ...
##
   $ Otu00082
                    : num
                           8.87e-05 0.00 0.00 0.00 1.84e-05 ...
##
   $ Otu00083
                    : num 0.00 2.76e-05 0.00 0.00 0.00 ...
##
     [list output truncated]
```

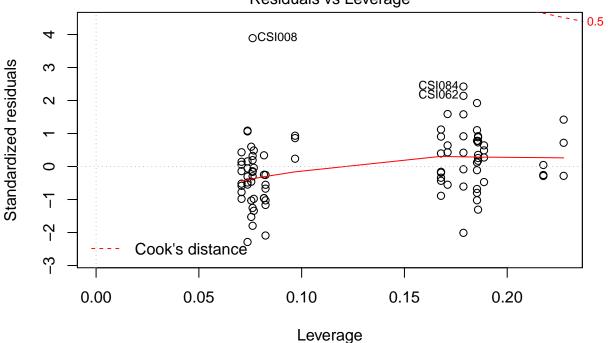
```
df.bcc <- csi.full.ns.Cmin[,-c(1:16)] #bacteria</pre>
df.env.bcc <- csi.full.ns.Cmin[,c(1:16)] #env</pre>
df.decomp <- csi.full.ns.Cmin[,c(12:14)] #decomp</pre>
df.decompCmin <- csi.full.ns.Cmin[,c(12:15)] #decompCmin</pre>
#bray curtis for bact comm
dist.bcc <- vegdist(df.bcc, method = "bray")</pre>
#euclidean distance for leaf litter decomp
dist.decomp <- vegdist(df.decomp, method = "euclidean")</pre>
#euclidean distance for leaf litter decomp and Cmin
dist.decompCmin <- vegdist(df.decompCmin, method = "euclidean")</pre>
#matrix comparison
mantel.rtest(dist.bcc, dist.decomp, nrepet = 999) #bacteria compared to decomp correlation r = 0.231, P
## Monte-Carlo test
## Call: mantel.rtest(m1 = dist.bcc, m2 = dist.decomp, nrepet = 999)
## Observation: 0.2309126
## Based on 999 replicates
## Simulated p-value: 0.005
## Alternative hypothesis: greater
##
##
        Std.Obs Expectation
                                  Variance
## 2.9358992446 0.0001026439 0.0061805441
mantel.rtest(dist.bcc, dist.decompCmin, nrepet = 999) #bacteria compared to decompCmin correlation r =
## Monte-Carlo test
## Call: mantel.rtest(m1 = dist.bcc, m2 = dist.decompCmin, nrepet = 999)
## Observation: 0.2116409
##
## Based on 999 replicates
## Simulated p-value: 0.007
## Alternative hypothesis: greater
##
       Std.Obs Expectation
                               Variance
## 2.885792458 0.001630443 0.005296045
#Redundancy Analysis
f <- df.bcc ~ Maple_dmass + Spartina_dmass + Phrag_dmass + Cmin
df.rda <- dbrda(f, data=df.env.bcc, distance="bray")</pre>
anova(df.rda, by="terms", model="direct")
## Permutation test for dbrda under direct model
## Terms added sequentially (first to last)
## Permutation: free
## Number of permutations: 999
##
## Model: dbrda(formula = df.bcc ~ Maple_dmass + Spartina_dmass + Phrag_dmass + Cmin, data = df.env.bcc
                  Df SumOfSqs
                                    F Pr(>F)
## Maple_dmass
                   1
                       0.8322 2.4026 0.001 ***
## Spartina_dmass 1
                       0.6253 1.8054 0.021 *
```

```
## Phrag_dmass
                         0.3183 0.9189 0.533
                     1
## Cmin
                         0.5641 1.6286 0.042 *
                     1
## Residual
                         9.0056
                    26
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
RsquareAdj (df.rda)
## $r.squared
## [1] 0.2062415
## $adj.r.squared
## [1] 0.08412478
plot(df.rda)
                                         CSI059
      5
                                                   Phrag_dmass
                                                              Spartina_dmass
                                        SIO7 CSI081
3546 SI070
074 CSI069
                                                             Mass dmass
      0.5
                                   CSI0721082
                                                             CSI068
dbRDA2
                                      CSI079SI060
                                                            CSI06\(\frac{1058}{2}\)
      -0.5
                                       CSI063
                                                               CSI086
                                  CS198485
CS1051 CS104
                                         CSI050
                                                              C$1054.
      ις.
                                        CSI062
                                                              cs 67min
                                    CSI052
                                            CSI053
              -3
                         -2
                                    -1
                                               0
                                                          1
                                                                     2
                                                                                3
                                               dbRDA1
# run full parametric statistical model
PD.lm <- lm(PD ~ Dispersal*Salinity*Date, data = csi.phylo.ns)
plot(PD.lm)
```





Im(PD ~ Dispersal \* Salinity \* Date)
Residuals vs Leverage



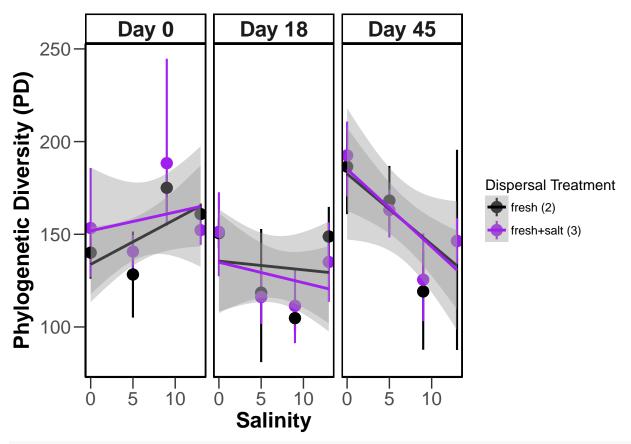
Im(PD ~ Dispersal \* Salinity \* Date)

```
## Analysis of Variance Table
##
## Response: PD
```

anova(PD.lm)

## Df Sum Sq Mean Sq F value Pr(>F)

```
## Dispersal
                                 74
                                       74.4 0.0814 0.776199
                           1
## Salinity
                               2891 2891.3 3.1612 0.079253 .
                           1
## Date
                           2 13257 6628.6 7.2475 0.001289 **
## Dispersal:Salinity
                                294
                                      293.5 0.3209 0.572650
                           1
## Dispersal:Date
                           2
                                914
                                      456.8 0.4995 0.608747
## Salinity:Date
                           2 11676 5838.1 6.3832 0.002693 **
## Dispersal:Salinity:Date 2
                                       52.1 0.0570 0.944656
                                104
## Residuals
                          79 72254
                                      914.6
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
# run linear regression measured salinity used instead of 'factor' salinity
PD.reg <- lm(PD~Salinity_real, data = csi.phylo.ns)
summary(PD.reg)
##
## Call:
## lm(formula = PD ~ Salinity_real, data = csi.phylo.ns)
## Residuals:
##
      Min
               1Q Median
## -82.052 -22.178 -0.528 18.479 131.553
##
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
                155.0612
                             6.2093 24.972
                                             <2e-16 ***
## (Intercept)
## Salinity_real -1.1907
                             0.7637 -1.559
                                               0.122
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 33.31 on 89 degrees of freedom
                                   Adjusted R-squared: 0.01565
## Multiple R-squared: 0.02659,
## F-statistic: 2.431 on 1 and 89 DF, p-value: 0.1225
# Phylogenetic Diversity - Treatment Salinity
p <- ggplot(csi.phylo.ns, aes(x=Salinity, y=PD, color=as.factor(Dispersal)))+ scale_color_manual(name=".
p1=p+geom_smooth(method="lm")+facet_wrap(~Date2)+facet_grid(. ~ Date2, labeller=labeller(Date2 = labels
p1 + theme_bw() + theme(panel.grid.major = element_blank(), panel.grid.minor = element_blank(), axis.li
```



ggsave("../figures/phylogenetic\_div.pdf", plot=last\_plot(), device=NULL, path=NULL, scale=1, width=NA, it

## Saving  $6.5 \times 4.5$  in image